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ABSTRACT

This report lists 236 books and articles of which 192 have been rated by a panel of 14 qualified futurists. The findings of this survey are being made available to aid in the professionalization of the field of futures research; to encourage more and better surveys such as this one; and to provide a somewhat authoritative list of selected readings for policymakers, professionals, students, and concerned citizens who wish to further their understanding of futures, futurists, and futuristics. The documents are rated according to merit and reading audience. Futures documents are annotated and classified according to (1) general overviews; (2) general symposia and anthologies; (3) technology and its impacts; (4) population, resources and environment; (5) government and international relations; (6) business and economics; (7) the individual, the family, and youth; (8) communications and education; (9) futures "classics"; (10) utopias and science fiction; (11) methodology; and (12) bibliographies and directories. From these documents, 36 were selected as a recommended basic library for futurists. The review also includes information about how to acquire the documents surveyed. A related document is ED 061 636. (Author/DN)

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EPRC Exploratory Report ER-6

THE HOT LIST DELPHI

An Exploratory Survey of Essential Reading for the Future

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EA 004 792

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THE HOT LIST DELPHI

An Exploratory Survey of Essential Reading for the Future

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PREFACE

> None of us have any ready-made answers. The fun of being a reporter is to recognize how little we know. So listen to a lot of different voices.
>
> -- I. F. Stone

This exploratory report lists 236 books and articles, of which 192 have been rated by a panel of 14 well-qualified futurists. It is the first attempt known of to secure a collective judgment on the important literature in any field of study.

The listing is presented here with several major reservations, which users are urged to bear in mind. Nevertheless, in contrast to the scientistic impulse to report only solid findings, the results of this survey are being made available on a limited basis because they will hopefully serve to further professionalize the field of futures research (or futuristics or futurology), to encourage more and better surveys such as this one, and--perhaps most importantly--to provide a somewhat authoritative list of selected readings for policy-makers, professionals, students, and concerned citizens who wish to further their understanding of futures, futurists, and futuristics.

It is appropriate that this survey is being published through the auspices of the Educational Policy Research Center, for it concerns a critical but generally neglected realm that might best be described as "elite adult education." Although the study of alternative futures is open to anyone, and futuristics can stand separately as a subject or can infuse the entire curriculum from elementary to

graduate school, it is of most urgent concern to present and prospective leaders of society who are responsible for charting broad directions--inventing the future, for better or worse. Some of our political and intellectual leaders may be kept well-informed through informal processes, but there is no systematic method by which the outpouring of printed literature in our nation--not to mention the world--is combed to identify those books, articles, and reports that are most critical to developing an understanding as to where our nation and humanity as a whole is headed and might be headed. This report will hopefully contribute to the realization of such a process.

A. Some Reservations

The listing that follows is merely a faint suggestion of what a globally selected list of "essential reading" might look like. The reservations concern time lags, size and composition of the panel, and methodological difficulties.

1. A Rather "Cool" Hot List

The intention of this exercise was to provide a list of currently essential reading--the "hot" items that could prove critical to influencing our understanding of present problems and possibilities. It employes a Delphi-like methodology[1] in that a panel of experts is employed for two iterations and responses both in rating items and in providing annotations and comments have been kept anonymous.

Although there will always be durable "classics" of five, ten, or even twenty years vintage, there is a bias in this exercise toward the older and better-known documents due to the inevitable time lags

[1]The Delphi methodology--essentially a series of questionnaires--is perhaps the best-known of the recently developed techniques for probing the future. It is described by Helmer in Social Technology (no. 197) and exemplified by the ongoing work at the Institute for the Future (e.g., see nos. 10 and 13).

in dissemination. Panelists volunteered their services, and surely did not have time to locate and digest newer works that might be considered as more up-to-date statements. Moreover, there was a time lag in the conduct of this exercise: documents were nominated during April and May 1972, and rated during June and July. Additional delays have caused this report to be prepared in September--a lag of several months during which new and noteworthy documents may have appeared.[2]

The resulting list will therefore not be surprising to many professional futurists. More than two-thirds of the 36 top-rated documents (see Chart 1) were published before 1970. Nevertheless, the titling of this report is retained as "The Hot List Delphi" to suggest what might be, more than what is.

2. Panel Size and Composition

The criterion for panel membership was "some degree of critical appreciation of at least 500 futures or futures-related documents." As of April 18, 44 persons were solicited, with 20 acceptances, 5 rejections (3 could not afford the time, 2 disagreed with and/or misunderstood the purposes), and 19 not responding. Of those who accepted, 16 participated in the nominating and/or rating process, and one individual requested a separate listing which appears here as Part II.

Of the 14 panelists who rated items[3] in Round II, 11 are based in the United States, and 13 are male. The U.S. bias in this preliminary exercise was anticipated (see Part III), and the possibilities of racial and sexual bias are always present, but difficult to overcome in that most futurists are Caucasian males. There was

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[2] E.g., Barbara Ward and Rene Dubos, Only One Earth (London: Naughton, 1972; to be published in the U.S. by W. W. Norton); Garrett Hardin, Exploring New Ethics for Survival: The Voyage of the Spaceship Beagle (N.Y.: Viking, 1972); and Herman Kahn and B. Bruce-Briggs, Things to Come: Thinking About the Seventies and Eighties (N.Y.: Macmillan, 1972, 262 pp., $6.95).

[3] There are only 13 ratings for each item, in that two of the panelists served as one rating unit.

at least one somewhat conservative panel member (see counter-annnotation to Dunstan and Garland, no. 56), but most of the panelists are probably "liberal," reflecting the ideology of most futurists.[4] "Radical" futurists will argue that most of the documents arrayed on this "Hot List" are merely bourgeois views that do not do justice to radical changes that are taking place and/or should take place. Some ideological bias will always be present in any listing, and future efforts might result in three or more separate Hot Lists that appeal, for example, to "technocratic," "humanistic," and "revolutionary" cognitive styles--although hopefully there would be some overlap between the lists, and ultimately a refining of differences.

The greatest bias concerns generalists and specialists. Most full-time futurists, [illegible] most of the panelists, are generalists. The selection of items about the future in general (nos. 1-58) or futures methodology (nos. 190-228) may be considered as reasonably authoritative. But the selection and rating of items in specific problem areas such as environment, cities, communications, education, and the economy is obviously insufficient as well as lacking authority. As subsequently proposed in Part IV, this problem can only be resolved by establishing a network of general and specialist panels in an on-going dialogue.

3. Methodological Difficulties

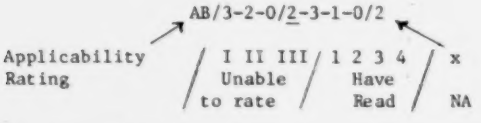
As an initial, exploratory exercise, various methodological "bugs" would appear to be inevitable. The original instructions to panelists, along with comments as to how they might be modified in future applications, are presented in Part III. At this point, it will only be noted that there was an intentional lack of clarity in defining "futures" literature (leading to some abstentions in rating), and an unintentional vagueness in stipulating the mix of Round II ratings, leading to lists of "Essential" readings ranging from 17 to 119. When the items were rated, they were arrayed in only 3

[4] Mark Wynn, "Who are the Futurists?" The Futurist, VI:2, April 1972, p. 74.

categories; they are presently arrayed in 12 categories, which could readily affect their rating in a subsequent round, in addition to suggesting additional items of merit. Virtually all of the panelists were willing to engage in a third round of ratings, but limited resources demand a closure of explorations--at least temporarily.

B. Explanation of Rating Codes

Each of the 192 rated documents is followed by a code that summarizes the judgment of the 13 panelists; for example,



Applicability Ratings

A - Professional

B - College-level/Informed Public

C - High School Level/General Public

Unable to Rate

I - Totally Unfamiliar

II - Have only heard about; know of it

III - Have scanned or read review

Have Read

1 - Essential (exemplary, very important)

2 - Good (of some worth, but not first rate)

3 - Fair (of minor worth)

4 - Poor (worthless, unduly biased, narrow)

NA

X - No answer, or disqualified due to possible bias (own work, work of colleagues, etc.)

Applicability ratings (A, B, and/or C) were supplied by those persons who nominated the document as essential, or by the editor. They are to be considered as only rough estimates.

The number of panelists rating an item as "Essential" is underlined in each instance; in the example provided above, two panelists view the item as "Essential."

There are two important variables to look for in each rating: the degree of cognition and the degree of controversy. Many items, especially reports, articles, science fiction books, and books published outside of the United States are apparently not well-known. For example, the Canadian report by John Porter (no. 151) received a rating of 8-0-2/2-0-0-0/1, suggesting that it would receive more "Essential" ratings if it were better known to the panelists. On the other hand, Charles Reich's best-seller, The Greening of America (no. 38) is well-known to the panelists, but the rating of 0-0-2/2-4-3-2/0 suggests that there is considerable controversy as to its merit.

Only six documents were rated by all of the panelists, while ten documents were rated by all but one of the panelists. One must thus conclude that there is very little literature that is universally shared by futurists. Moreover, there is very little sharing of judgment: only four documents receiving two or more ratings as "Essential" escaped a blemishing rating of Good, Fair, and/or Poor. Only one book--The Year 2000 by Kahn and Wiener (no. 28)--was unanimously judged as "Essential."

C. A Basic Library for Futurists: "The Top 36"

Nevertheless, despite the many blemishes and biases in this exercise, there are some documents that are more "Essential" than others. As a basic library for futurists, those documents rated as "Essential" by more than one-third of the panelists (5 or more "Essential" ratings, regardless of Good, Fair, and Poor ratings)

are listed in Chart 1 on the following page. A more complex cut-off criterion could be employed (assigning positive and negative weights to the Good, Fair, and Poor ratings) but any criterion has its bias, and it is felt that the present exercise should be simplified as much as possible.

Chart 1. Documents Rated as "Essential" by More Than One-Third of Panelists

(* = Rated as "Essential" by More Than Two-Thirds of Panelists)

AYRES, Robert U. Technological Forecasting and Long-Range Planning, 1969 (no. 207).

BAIER, Kurt and Nicholas RESCHER (eds.). Values and the Future, 1971 (no. 190).

*BELL, Daniel (ed.). Toward the Year 2000, 1967 (no. 47).

*BOULDING, Kenneth E. The Meaning of the Twentieth Century, 1965, no. 5).

BRZEZINSKI, Zbigniew. Between Two Ages, 1970 (no. 6).

*CLARKE, Arthur C. Profiles of the Future, 1963 (no. 8).

*de JOUVENEL, Bertrand. The Art of Conjecture, 1964, 1967 (no. 193).

DROR, Yehezkel. Ventures in Policy Sciences, 1971 (no. 226).

DRUCKER, Peter F. The Age of Discontinuity, 1969 (no. 11).

DUNCAN, Otis Dudley. "Social Forecasting--The State of the Art," 1969 (no. 195).

ELLUL, Jacques. The Technological Society, 1964 (no. 61).

FABUN, Don. The Dynamics of Change, 1967 (no. 15).

FORRESTER, Jay. "The Counterintuitive Behavior of Social Systems," 1970 (no. 19).

FORRESTER, Jay. World Dynamics, 1971 (no. 18).

The Futurist, Articles on Technology Assessment, Dec. 1971 and Feb. 1972 (no. 217).

GABOR, Dennis. Inventing the Future, 1964 (no. 21).

HEILBRONER, Robert L. The Future as History, 1961 (no. 26).

HELMER, Olaf. Social Technology, 1966 (no. 197).

HELMER, Olaf and Nicholas RESCHER. "On the Epistemology of the Inexact Sciences," 1959 (no. 196).

HUXLEY, Aldous. Brave New World, 1932 (no. 174).

*JANTSCH, Erich. Technological Forecasting in Perspective, 1967 (no. 211).

JUNGK, Robert and Johan GALTUNG (eds.). Mankind 2000, 1969 (no. 51).

*KAHN, Herman and Anthony WIENER. The Year 2000, 1967 (no. 28).

KUHN, Thomas S. The Structure of Scientific Revolutions, 1962 (no. 200).

MARIEN, Michael. Alternative Futures for Learning, 1971 (no. 232).

McHALE, John. The Future of the Future, 1969 (no. 30).

McLUHAN, Marshall and Quentin FIORE. The Medium is the Massage, 1967 (no. 73).

MEAD, Margaret. Culture and Commitment, 1970 (no. 126).

MEADOWS, Donella et. al. The Limits to Growth, 1972 (no. 77).

MICHAEL, Donald N. The Unprepared Society, 1968 (no. 32).

ORWELL, George. 1984, 1949 (no. 180).

PLATT, John. "What We Must Do," 1969 (no. 34).

SKINNER, B. F. Walden Two, 1948 (no. 183).

TAYLOR, Gordon Rattrey. The Biological Time Bomb, 1968 (no. 72).

THEOBALD, Robert. The Economics of Abundance, 1970 (no. 108).

*TOFFLER, Alvin. Future Shock, 1970 (no. 43).

D. Acquiring Documents

A final note is warranted on the acquisition of documents. The most convenient method of obtaining books about the future is through the World Future Society Book Service (P.O. Box 30369, Bethesda Branch, Washington, D.C. 20014). Non-members may use this service, but membership (at $10 per year, including a subscription to the excellent bi-monthly, The Futurist) affords a 10% discount and is therefore advised. For an additional $10 per year, one can join the WFS Supplemental Program, and receive the monthly WFS Bulletin, which lists new books available, scholars' inquiries, etc. In the subsequent listing of documents "(WFS)" is indicated at the end of a citation if the document is available through the Book Service. The lack of this notation, however, does not necessarily indicate that the document is not available, and it is suggested that the purchaser inquire about the latest list of books available.

Many of the documents rated here as "Essential" have also been selected by the World Future Society, but many have not. Conversely, of 84 documents listed in the August 1972 issue of The Futurist, only 32 were mentioned by any of the panelists as "Essential." There are surely some second-rate documents appearing in the World Future Society listing, but there is perhaps an equal if not greater ratio of second-rate to first-rate documents appearing in this present listing (those items that are well-known but nevertheless receive only one or two "Essential" ratings). And in many respects, the WFS list is more current. For example, a 1968 anthology by Richard Kostelanetz (no. 58) received a good rating from those who were familiar with it (1-5-3/3-1-0-0/0), but the World Future Society offers two subsequent anthologies by Kostelanetz which could prove superior if panelists were familiar with them.[5] This is only one example that might caution readers against placing too much faith in the trial run of the "Hot List Delphi."

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[5] Social Speculations: Visions for Our Times (William Morrow, 1970?; 307 pp.; $2.95) and Human Alternatives: Visions for Us Now (William Morrow, 1971; 297 pp.; $7.95).

E. Listing of Panelists

Wayne I. Boucher, Secretary and Senior Project Manager, The Futures Group, 124 Hebron Ave., Glastonbury, Conn. 06033.
-Presently compiling an annotated bibliography of futures bibliographies, and co-editor of Systems Analysis and Policy Planning (see no. 222).

Edward Cornish, 5501 Lincoln St., Bethesda, Md. 20034.
-President of World Future Society and Editor of The Futurist.

Jim Dator, Bachman Annex 8, Room 7, University of Hawaii, Social Science Research Institute, Honolulu, Hawaii 96922.
-Professor of Political Science and Director of the Program in Futures Research at the University of Hawaii; Advisor to the State Commission on Hawaii 2000. Presently establishing a computerized bibliography of futures literature.

Yehezkel Dror, Hebrew University of Jerusalem, Dept. of Political Science, Jerusalem, ISRAEL.
-Editor of Policy Sciences Books Series, Book Review Editor of Policy Sciences, and author (see nos. 224-226).

William R. Ewald, Jr., 1150 Connecticut Ave., N.W., Washington, D.C.
-Development Consultant and editor of several anthologies on environmental planning (see nos. 84-85).

Arthur Harkins and Richard Woods, Director and Associate Director, Office for Applied Social Science and the Future, University of Minnesota, 720 Washington Ave., S.E., Minneapolis, Minn. 55455.
-Harkins is co-editor of the 1971 Pre-Conference Volume of the American Anthropological Association (see no. 52). Harkins and Woods teach a number of futures courses and have inspired many others in "futurizing" the University of Minnesota. (Ed. note: The Harkins/Woods contribution to the panel is counted as a single panelist.)

Dennis Livingston, 2640 Dartmoor Road, Cleveland Heights, Ohio 44118.
-Consultant on education for alternative world futures, science fiction book reviewer for Futures, compiler of bibliographies on science fiction and world futures, author of "Science Fiction Models of Future World Order Systems," International Organization, Spring 1971. (Also see no. 164.)

Eleonora Masini, IRADES, Via Paisiello 6, Rome, ITALY, 00198.
-Coordinator of Work Group producing annual Social Forecasting Directory (see no. 231) and quarterly "Social and Human Forecasting Newsletter," author of Social and Human Forecasting (no. 202) and editor of Space for Man (no. 93).

Jay S. Mendell, 21 King Edward Road, West Hartford, Conn. 06117.
-Writer on technology and the future, Innovation Editor of The Futurist, and Senior Staff Analyst, Advanced Planning, Pratt and Whitney Aircraft Division, United Aircraft Corporation.

David C. Miller, Pacific House, 360 Bryant St., Palo Alto, Calif. 94301.
-Adjunct Professor with the Cybernetic Systems Program, California State University at San Jose.

Billy Rojas, Alice Lloyd College, Pippa Passes, Ky. 41844.
-Director of Futuristics Curriculum Project at Alice Lloyd and compiler of various bibliographies and directories.

Hugh A. Stevenson, Althouse College of Education, University of Western Ontario, London, Ontario, CANADA.
-Co-Editor of The Best of Times/The Worst of Times: Contemporary Issues in Canadian Education (Toronto: Holt, Rinehart & Winston, 1972) and co-compiler of Canadian Education and the Future: A Select Annotated Bibliography (see no. 233).

Franklin Tugwell, Dept. of Government, Pomona College, Claremont, Calif. 91711.
-Teacher of futures courses and editor of Public Policy and the Study of the Future, to be published in late 1972 by Winthrop, a Prentice-Hall subsidiary.

* * *

(Providing separate listing included here as Part II)

N. M. Ralf/B. Ziegler, Dokumentation fÜr Graue Literatur, Zukunftsforschung, KurfÜrstendamm 195/6, VI, 1, Berlin 15, GERMANY.

* * *

(Providing Round I Nominations, but not rating documents in Round II)

Howard T. Bausum, Medical Environmental Research Unit, Edgewood Arsenal, Md. 21010.
-Compiler of third edition of Science for Society: A Bibliography (see no. 229).

Stephan Schwarz, Research Institute of the National Defense, S-104 50, Stockholm 80, SWEDEN.
-Specializing in the development of futures information systems.

Rowan A. Wakefield and Louisa Messolonghites, Institute for Educational Development, 52 Vanderbilt Ave., New York, N.Y. 10017.
-Wakefield is Executive Vice-President of the Aspen Institute for Humanistic Studies and a Director of the World Future Society.

* * *

(Coordinator and commentator, but not rating documents in Round II)

Michael Marien, Educational Policy Research Center, 1206 Harrison St., Syracuse, N.Y. 13210.
-Author of Beyond the Carnegie Commission: A Policy Study Guide to Space/Time/Credit-Preference Higher Learning (EPRC, 1972), co-editor of The Potential of Educational Futures (Jones, 1972), and compiler of Alternative Futures for Learning (see no. 232).

Part I

Annotated Listing of Documents

A. GENERAL OVERVIEWS

The first 46 items are the essence of good futures thinking: holistic, transdisciplinary, multi-faceted. They could be roughly arrayed on a continuum of purely descriptive futures (or what might happen) vs. purely prescriptive futures (or what future we ought to have), but to do so is virtually impossible for nearly every document mixes a description of trends and possible futures with a prescription for desirable goals and action that leads to them. The cacophony is augmented by different perceptions of what is changing, what further changes are required, and how these changes are best promoted. Resolution of these differences will hopefully characterize essential reading in forthcoming years.

1. BECKWITH, Burnham Putnam. The Next 500 Years: Scientific Predictions of Major Social Trends. N.Y.: University Exposition, 1967. 341 pp. $10.00. (WFS)

   --Although these forecasts may be criticized for their unequivocal character (and on other grounds), they are very specific and well integrated with each other. Roy Amara at the First World Future Society Assembly made a detailed analysis of Beckwith's forecast and rated it "fair to good." This book gives the reader a large number of specific forecasts to react to. AB/0-0-4/1-6-2-0/0

2. BELL, Daniel. "Notes on the Post-Industrial Society," Parts I and II in The Public Interest, Nos. 6 and 7, Winter and Spring 1967.

   --General comments on emerging post-industrial society. Especially interesting is thesis concerning the central or catalytic role of theoretical knowledge replacing control of the means of production (wealth). AB/3-3-0/3-4-0-0/0

3. BENNIS, Warren G. and Philip E. SLATER. The Temporary Society. N.Y.: Harper & Row, 1968. 147 pp.

   --To cope successfully with rapid and chronic change will require a democratic system: egalitarian, pluralistic, decentralizing. AB/2-1-2/1-5-1-1/0

4. BOOKCHIN, Murray. Post-Scarcity Anarchism. N.Y.: Ramparts Press, 1971. 288 pp. $6.95.

   --A collection of essays, many from Anarchos magazine, critiquing present society and prescribing change from the perspective of a radical utopian. AB/9-0-0/2-0-0-1/1

5. BOULDING, Kenneth E. The Meaning of the Twentieth Century: The Great Transition. N.Y.: Harper & Row, 1964; Harper Colophon Edition, 1965. 208 pp. $1.45 paper. (WFS)

--Argues that mankind is in the midst of a transition from civilized to post-civilized society and that, to make the transition successful, man must avoid the "traps" of over-population, war, energy and resource exhaustion, and of a mankind whose creativity and energies are dissipated because of lack of challenge.

--Sweeping but convincing commentary on trajectory of civilization.

AB/0-0-0/10-3-0-0/0

6. BRZEZINSKI, Zbigniew. Between Two Ages: America's Role in the Technetronic Era. N.Y.: Viking, 1970. 334 pp. $7.95.

--Broad overview of global trends. Especially good for outlining possibilities for the Soviet Union, but somewhat short-sighted on the possibilities of social change in the U.S.

AB/0-0-4/5-3-1-0/0

7. CHASE, Stuart. "Green Money or Green Earth?," The New York Times (Op-Ed Page), June 24, 1972.

--The problems of our time are cogently summarized here in less than 500 words. "A contest is clearly gathering between the partisans of the gross national product and of the quality of life . . . I believe there are eight major steps which sooner or later must be taken if the planet is to remain viable." Briefly summarized, the steps are zero population growth, zero industrial production growth, recycling and conserving material resources, an adequate budget of the five prime essentials (food, shelter, clothing, health services, education) available for every human being, a decline in the consumption of material goods in affluent societies, a sharp increase in the social sciences "to help us deal with the severe cultural changes that are surely coming," applied science to be carefully researched for side effects, and some kind of organized world community.

BC--not rated (Ed. suggestion).

8. CLARKE, Arthur C. Profiles of the Future. N.Y.: Bantam Books, Inc., 1968. 235 pp. $1.25 paper. (Originally published by Harper & Row, 1963; revised edition reportedly in press.) (WFS)

--Of all Clarke's writings, surely this non-fiction discussion of human prospects is most essential. Its Clarkian combination of conceptual accuracy with imaginative conjecture to my mind represents futures studies in best form.

--Exceptionally well-written and scientifically well-balanced.

--(Essential, but) almost entirely devoted to speculations on developments in the communications and transportation fields and their impact on society; not much on social forecasts per se.

ABC/0-0-1/10-2-0-0/0

9. Contemporary Societal Problems. Menlo Park, Calif.: Educational Policy Research Center, Stanford Research Institute, June 1971. 46 pp.

--Other EPRC publications might have qualified; this example chosen for its sweeping yet systematic framework within which current agonies and future options can be probed with great profit. AB/4-1-0/3-5-0-0/0

10. DE BRIGARD, Raul and Olaf HELMER. Some Potential Societal Developments, 1970-2000. Middletown, Conn.: Institute for the Future, IFF Report R-7, April 1970. 134 pp.

--A useful, qualified listing.

--(Ed. note) This is the first attempt to apply the Delphi technique in forecasting societal developments. Also see item 13. AB/0-0-0/3-6-4-0/0

11. DRUCKER, Peter F. The Age of Discontinuity. N.Y.: Harper & Row, 1969. 402 pp. $7.95. (WFS)

--Special attention paid to new industries and new economic policies, the development of a world economy, the impact of the multi-national corporation upon people and governments, and the developing shape of education and knowledge. It is clear that Drucker believes we are unable to do without immense organizations and that substantial changes in technology are likely.

--A modern classic.

--A good antidote to the apocalyptic visions of the future.

--(Ed. comment) The last section on "The Knowledge Society" is very important. AB/0-0-4/7-1-1-0/0

12. Editors of N.Y. Times Economic Review (Special Section). Search for Meaning Amidst Change, June 6, 1969.

--A good collection of future overviews. AB/7-2-1/1-1-1-0/0

13. ENZER, Selwyn, Dennis LITTLE, and Frederick D. LAZAR. Some Prospects for Social Change by 1985 and Their Impact on Time/Money Budgets. Report S-25. Middletown, Conn.: Institute for the Future, March 1972.

--The most important study of the future of U.S. society yet undertaken through the use of futures research techniques--in this case, Delphi. A/2-0-3/3-5-0-0/0

14. ETZIONI, Amitai. The Active Society. N.Y.: The Free Press, 1968.

--A sociologist presents a comprehensive theory pointing to the need for self-conscious guidance of society into the future. A/4-1-4/3-1-0-0/0

15. FABUN, Don. The Dynamics of Change. Englewood Cliffs, N.J.: Prentice-Hall, 1967. 190 pp. $6.95. (WFS)

--Fabun occupies a unique intersection between the analytic and the affective futurist movements. Widely read and regarded. Much in the spirit of the lesser known Next 50 Years in Space by Dandridge Cole. A thought and feeling provoker having many applications.

--The graphic layout of this book is especially noteworthy, with the designs beautifully illustrating or emphasizing the textual material. Note a kind of technological optimism throughout the book, perhaps overdone.

--Note Fabun's sequel to this book: Dimensions of Change. Beverly Hills: Glencoe Press, 1971. 230 pp.

ABC/0-1-1/6-3-2-0/0

16. FEINBERG, Gerald. The Prometheus Project: Mankind's Search for Long-Range Goals. N.Y.: Doubleday Anchor paperback, 1969. 264 pp. $1.45. (WFS)

--A plea for more thinking about man's long-range goals: Why this is desirable and how it might be done. Feinberg presents his own views, but does so in the vein of one simply nominating one possible set of goals, without dogmatically promulgating his opinion. AB/0-1-2/3-3-3-1/0

17. FERKISS, Victor C. Technological Man: The Myth and the Reality. N.Y.: Braziller, 1969. 336 pp. $7.95. Mentor paper edition $1.50. (WFS)

--Mankind will soon reach the "threshold of self-transfiguration, having attained power over itself and its environment." The author defines some directions we must take and seems convinced that such (technological man) will indeed come into being.

AB/0-0-4/4-5-0-0/0

18. FORRESTER, Jay W. World Dynamics. Cambridge, Mass.: Wright-Allen, 1971. 142 pp. $9.75. (WFS)

--A pioneering attempt at predicting the future course of civilization by subjecting certain key variables (food, resources, industrial production, pollution, standard of living, population) to computer-assisted analysis. Several model futures are presented, the central finding being that, unless effective countermeasures intervene, we are headed for a severe decline (collapse) in both population size and quality of life.

A/1-0-3/6-2-0-1/0

19. FORRESTER, Jay W. "The Counterintuitive Behavior of Social Systems," Technology Review, January 1970.

--Summarizes "counterintuitive hypothesis" plus reviews methods and main conclusions of the systems dynamics mode of cybernetic anticipations. A/2-1-0/6-4-0-0/0

20. FULLER, R. Buckminster. Utopia or Oblivion: The Prospects for Humanity. N.Y.: Bantam, 1969. 366 pp. $1.25 paper.

--Based upon talks and papers given by Fuller during recent years. Suffers somewhat from discontinuities and redundancy, but despite these irritations, it is a useful compendium of Fuller's thoughts about Man and Universe, and a good companion to his Nine Chains to the Moon.

AB/2-1-2/3-4-1-0/0

21. GABOR, Dennis. Inventing the Future. N.Y.: Knopf, 1964. 238 pp.

--(Ed. comment) A general overview of the human condition by a noted scientist, opening with a chapter on "The Trilemma" that explores the three great dangers faced by our civilization: nuclear war, overpopulation, and the Age of Leisure. This readable essay then rambles on to discuss challenges to technology in light of diminishing resources, the negative correlation between ability and fertility, the proliferation of science, the lag of creativity (both in the sense of social engineering and in vision) behind technology, "Our Non-Contemporary World" of the growing gap between rich nations and poor nations, and the dangers of pessimism that keep us from mastering our fate and inventing the future.

This book is not particularly superior to other and more recent overviews but it is noteworthy for an excellent command of earlier "futurist" work (the Today and Tomorrow Series, H. G. Wells, Aldous Huxley, Lewis Mumford, etc.), and, in turn, is considered an "early" contribution to contemporary futurism, with its title still in use as a general slogan.

ABC/1-0-1/5-3-2-1/0

22. GABOR, Dennis. Innovations: Scientific, Technological, and Social. N.Y.: Oxford University Press, 1970. 113 pp. $4.95; $1.95 paper. (WFS)

--Optimism for a qualified scientist.

--Astounding for its social science ignorance and failure of nerve.

--(Ed. comment) This brief survey of 137 inventions and innovations that we might anticipate (73 of them 'hardware,' 27 biological, and 37 social) is generally disappointing--and all the more so because Gabor has recently attained a Nobel prize for his invention of holography. The discussion of developments in the hard sciences utilizes many of the IFF Delphi questions (see item 10); it is generally lucid, but fails to explore the possibility of negative consequences. The discussion of social innovations is superficial and naive. The section on crime and corruption, for example, fails to acknowledge any need for reforming prisons and courts. Student violence is seen as resulting from the large number of students combined with institutional permissiveness. The solution for education is seen as "a new type of teaching, which will be rewarding also for the lesser gifted, by being half entertainment, half instruction" (p. 97; also p. 55 and

p. 106--redundancy perhaps indicating the paucity of thought). Futuristic studies are advocated, but narrowly defined to include only a handful of technocratic elites. The attempt to be comprehensive is admirable, as is the admission of the imbalance between technological and social innovation (p. 7), which unfortunately is not reflected in the subsequent contents of the book. AB/2-0-6/2-2-1-0/0

23. GORDON, Theodore J. The Future. N.Y.: St. Martins Press, 1965. 184 pp. $3.95.

--(Ed. note) A popularized overview of behavior control, population, heredity control, war, automation, religion, and space exploration. BC/1-0-1/2-5-3-1/0

24. HACKER, Andrew. The End of the American Era. N.Y.: Atheneum, 1970. 239 pp. $6.50.

--A good Devil's Advocate would surely recommend this thoroughly pessimistic view of the disintegration of social cohesion in the U.S. A similar view is offered by John Lukacs, The Passing of the Modern Age (N.Y.: Harper & Row, 1970).
AB--not rated (Ed. suggestion)

25. HARMAN, Willis W. "Key Choices of the Next Two Decades, An Exploration of the Future," Fields Within Fields...Within Fields, 5:1, 1972, pp. 82-92. (Available from the World Institute Council, 777 United Nations Plaza, New York, N.Y. 10017 for $1.00. Other notable articles in this issue include "The Methodology of Pattern" by Julius Stulman, "The Highest State of Consciousness" by John White, and "Communicating Holistic Insights" by R. F. Rhyne.)

--Argues that a major historical transformation is under way, in distinct contrast to the widely held view promulgated by Herman Kahn and Anthony Wiener in The Year 2000 that the available alternative futures comprise modest deviations from a "long-term multifold trend." But a fundamental problem faces us, for "perfectly reasonable microdecisions currently are adding up to largely unsatisfactory macrodecisions" (p. 87).

Concludes that: "The extent to which our deliberate actions can affect the future is undoubtedly limited . . . Quite apart from our desires, the transformation postulated in these remarks is either upon us or it is not--it is not our choice to make. However, we can choose either to understand and move with the tides of history, whatever they may be--or to attempt to resist them. Upon that choice may rest in great measure the state of business in 1990--and beyond" (p. 92).
AB--not rated (Ed. suggestion)

26. HEILBRONER, Robert L. The Future as History. N.Y.: Grove Press, 1961.

--Impressive synthesis of ideas about the influence of the past on the future and the need for planning.
ABC/0-1-2/5-3-2-0/0

27. The Hudson Institute Chartbooks. Hudson Institute, Inc., Quaker Ridge Road, Croton-on-Hudson, N.Y. 10520, 1971(?).

--Prepared for the Institute's Corporate Environment 1975-85 Study, the following areas are covered: youth, technological forecasting, U.S. and international economic issues, economic issues for the U.S., food and population, international economic issues, health and medical care, housing and urban development, interesting technological areas, management issues, data context for U.S., crisis of liberal political society, and changing values and life styles.

A/3-3-2/3-2-0-0/0

28. KAHN, Herman and Anthony J. WIENER. The Year 2000: A Framework for Speculation on the Next Thirty-Three Years. N.Y.: Macmillan, 1967. 431 pp. $9.95. (WFS)

--Essentially extrapolationist, with little attention paid to ecology, communications, and education--but nevertheless still valuable for its scenarios and the final chapter on "Policy Research and Social Change."

--Contemporary efforts drawing on the work speak for it all that need be spoken.

AB/0-0-0/13-0-0-0/0

29. LEVY, Marion, Jr. Modernization and the Structure of Societies. 2 Vols. Princeton University Press, 1966.

--An extremely important and thorough theoretic/empirical statement of social change and social structure.

AB--not rated

30. McHALE, John. The Future of the Future. N.Y.: Braziller, 1969. 322 pp. $1.50 paper. (WFS)

--Mankind must now learn to anticipate and to plan its future, for we will get the future we learn to expect. McHale provides an overview of our many population/environment and societal problems and of our options as he sees them.

--As important elements in the world reorganization implicit in a radically different future, McHale discusses natural resource inventories, computers, cybernetics, control of biological processes, population, telecommunications, the environment, oceanography, space experimentation, and resource availability.

--The best (of all items rated).

AB/0-0-2/6-3-1-0/1

31. McHALE, John. World Facts and Trends. N.Y.: Macmillan, 1972. 95 pp. $2.95 paper. (WFS) (Also published in Futures, Sept. & Dec. 1971.)

--A basic selection of those items which may be most relevant to the discussion of world facts and trends giving a global overview.

AB/0-1-3/4-3-1-0/1

32. MICHAEL, Donald N. The Unprepared Society: Planning for a Precarious Future. N.Y.: Basic Books, 1968. 132 pp. $4.95; $1.60 paper. (WFS)

--A cogent introduction to the problems of complexity, turmoil, and scarcity; the need to examine the future, and challenges to educators. ABC/0-1-0/5-6-1-0/0

33. MUMFORD, Lewis. The Transformations of Man. London, 1956.

--The great changes in which man is involved bring him the possibility of degradation through excessive faith in the machine and at the same time the possibility of a complete realization of himself. AB/0-4-1/3-2-2-1/0

34. PLATT, John. "What We Must Do," Science, 166: Nov. 28, 1969, pp. 1115-1121.

--A concise overview of the multiple crises we confront, focusing on two charts--for the U.S. and the World--indicating the priority of problem areas and the estimated time to crisis broken down in three future periods: 1-5 years, 5-20 years, and 20-50 years.

--(Essential, but) . . . the article is deficient in its lack of attention to the need for political reform to cope with the crises it outlines: technology alone won't do the job. (Editor's note: Amen, but remember that the article is addressed to the "We" of scientists.)

--(Ed. note) An important sequel has just been published: Richard A. Cellarius and John Platt, "Councils of Urgent Studies," Science, 177, August 25, 1972, pp. 670-676. The authors advocate a wartime level research effort with various councils at local, national, and international levels--"a kind of general staff for humanity"--identifying problems, analyzing their components, and bringing together scientists and funds. An extensive appendix is provided, classifying 25 urgent project areas under six broad categories. AB/0-0-0/7-6-0-0/0

35. RADOVAN, Richta. Civilization at the Crossroads. Prague: Svoboda, 1969. AB/10-0-1/1-1-0-0/0

--An insertion of Marxism in tomorrow's problems, and the study of the possibilities that the scientific and technological revolution bring to socialism.

36. REISER, Oliver L. Cosmic Humanism. Cambridge, Mass.: Schenkman Publishing Co., 1966. 576 pp. $8.95.

--"A theory of the eight-dimensional cosmos based on integrative principles from science, religion, and art," with fourteen illustratively titled chapters: The Battle of Man, From Primitive Magic to Modern Science, The Evolution of Cosmologies, The Structure of Modern Knowledge, The Nature of Matter, Space and Time, The Role of Field Forces in Physical and Mental Synthesis, Cosmic Evolution as Harmonic Integration, Music, Mathematics, and Cosmology, Astrobiology, Cybernetics, and Divine

Knowledge, The Cosmic Christ and Archetypal Man, Cosmic Biology and the Spiral of Life, The Radiation Belts of Thought, The Cosmos Has a Plan and So Has Man, and Cosmic Humanism: The Great Experiment.

As an analogue to Fuller's integrative, comprehensive work, it is in some ways more complete, in other ways more murky. Must reading. AB/9-1-2/1-0-0-0/0

37. REVEL, Jean-Francois. Without Marx or Jesus: The New American Revolution Has Begun. N.Y.: Doubleday, 1971. 269 pp. $6.95. Translated from the French by Jack Bernard.

--Argues that "today in America--the child of European imperialism--a new revolution is rising. It is the revolution of our time. It is the only revolution that involves radical, moral and practical opposition to the spirit of nationalism. It is the only revolution that, to that opposition, joins culture, economic and technological power and a total affirmation of liberty for all in place of archaic prohibitions. It, therefore, offers the only possible escape for mankind today: The acceptance of technological civilization as a means and not an end, and--since we cannot be saved either by the destruction of the civilization or by its continuation--the development of the ability to reshape that civilization without annihilating it." (Also see condensation in Saturday Review, July 24, 1971, pp. 14-32.)
AB/2-2-4/1-4-0-0/0

38. REICH, Charles A. The Greening of America. N.Y.: Random House, 1970. 399 pp. $7.95.

--A revolution in the values and world view of our society is occurring, which is both nonviolent and inexorable, is most pronounced among the young (who have not yet fallen prey to cynicism and despair), and which will gradually leaven the whole lump of society. Impotent subservience to that unified, all-encompassing public/private power, the "Corporate State," will be lessened, while genuine community, self-actualization, and the joy of work will be increased. Despite the many criticisms concerning the possibility of such a development and its workability or even desirability in a practical, rationalistic world, the book does stand as a reminder of the immense promise inherent in a return to authentic values. ABC/0-0-2/2-4-3-2/0

39. SKINNER, B. F. Beyond Freedom and Dignity. N.Y.: Alfred Knopf, Inc., 1971. 225 pp.

--Asserts that "The intentional design of a culture and the control of human behavior it implies are essential if the human species is to continue to develop. Neither biological nor cultural evolution is any guarantee that we are inevitably moving toward a better world." A major impediment to such design is the literature of freedom and dignity and its championing of autonomous man, who "is a device used to explain what we cannot explain in any other way. He has been constructed from our ignorance . . ." The response to this book has been passionate

and varied with some critics hailing Skinner as the planter of "seeds of the first culture that has ever offered tested and effective ways of shaping each other's behavior so as to reach our full and diverse human potentialities" (John Platt), others dismissing the book as unscientific and a "travesty" (Noam Chomsky), and still others who find behaviorists too convinced that they have the exclusive explanations for human behavior (Arnold Toynbee).

AB/0-0-5/3-4-0-1/0

40. RIBEIRO, Darcy. The Civilizational Process. Translated, and with a foreword by Betty J. Meggars. Washington: Smithsonian Institution Press, 1968. 201 pp. $6.50.

--A global scheme of sociocultural evolution by a Brazilian anthropologist with a "Third World"/Marxist viewpoint. After reviewing archaic societies, regional civilizations, and world civilizations, Universal Civilization is seen as inevitable, resulting from an expansion of the Thermonuclear Revolution. Future Societies are seen as socialist formations of a new type, with eradication of differences between city and country, art once again a universal activity, and a world of almost unlimited activities both in knowledge and in action. "Once the problems of elimination of shortages and the social regulation of abundance, and of equalization of educational opportunity and generalization of public health facilities have been solved, the primary challenges confronting Future Societies will cease to be their effective use of the prodigious resources of energy, goods, and services. Instead, there will be new problems related to the appropriate use of the power of compulsion over men and the rational application of the socialization process" (p. 139). A--not rated (Ed. suggestion)

41. THEOBALD, Robert. An Alternative Future for America. Chicago: Swallow Press, 1968. 186 pp. $1.95 paper. (WFS)

--A good introductory book--scattered, because it is a collection of speeches, but a mind-stretching beginning.

(Ed. note: A revised and enlarged edition, incorporating new material in two-thirds of the book, was published in May 1970. 199 pp. $6.00; $2.00 paper.)

BC--not rated

42. THOMPSON, William Irwin. At the Edge of History: Speculations on Cultural Transformation. N.Y.: Harper & Row, 1971.

--Cosmic commentary by a culture historian who sees an end to our history as we know it.

AB/3-2-0/2-6-0-0/0

43. TOFFLER, Alvin. Future Shock. N.Y.: Random House, 1970. 505 pp. $1.95 paper. (WFS)

--Well-known overview of problems arising from transience, novelty, and diversity--and the various individual and collective strategies necessary for survival.

ABC/0-1-1/9-1-1-0/0

44. TOFFLER, Alvin. "The Future as a Way of Life," Horizon, Summer 1965.

--Still, in my opinion, the seminal article for modern "futuristics." An excellent summary of why we need to look at the future differently from the way we have looked at it before. Much better than Future Shock, in my opinion.
BC--not rated

45. WAGAR, W. Warren. Building the City of Man: Outlines of a World Civilization. N.Y.: Grossman Publishers, 1971. 180 pp.

--In the interests of human survival, the author has attempted a massive task: the design of a workable planetary social structure for man. Starting with a now familiar theme, Wagar says "The enemy of modern civilization is something quite commonplace, and utterly impersonal. I shall not be clever. The enemy is change. The enemy is the geometrically accelerating pace of change in the growth of all the powers of mankind." This bluntness characterizes the style of the author, and accurately conveys the intensity of his sentiments, everywhere on display in this remarkable book. A mind-bender for any literate reader ready to take a comfortless intellectual trip.

--(Ed. note) This is the first volume in World Order Models Project, and one of the very few books that discusses how to get there from here. ABC/4-1-3/4-1-0-0/0

46. World Law Fund. Final Document of the North American Group of the World Order Models Project, 1972 (book in draft). World Law Fund, 11 W. 42nd St., New York, N.Y. 10036.

--WOMP is the brainchild of the World Law Fund, designed to get regional teams of academics offering detailed postulations on desirable futures as they see it; the North American team is directed by Richard Falk, so this piece is a kind of "son of This Endangered Planet" (see items 79 and 102).
AB/3-3-3/1-3-0-0/0

B. GENERAL ANTHOLOGIES AND SYMPOSIA

At this point in the listing, where similarities and differences are more readily apparent, documents will generally be clustered together, rather than appearing in alphabetical order. Nos. 48 and 55-58 are especially appropriate for use as college-level textbooks.

47. BELL, Daniel (ed.). Toward the Year 2000: Work in Progress. Boston: Houghton Mifflin, 1968. 400 pp. Originally published by American Academy of Arts and Sciences in Daedalus, Summer 1967.

--Deliberations of the Commission on the Year 2000. Especially important for its abridged transcripts of the discussion of the future among participants.

--The pioneer study of the year 2000 with some unsurpassed insights.

--Simply one of the hallmark efforts in modern Futures Studies.
AB/0-0-0/10-3-0-0/0

48. BRONWELL, Arthur B. (ed.). Science and Technology in the World of the Future. N.Y.: John Wiley and Sons, Inc., 1970. 395 pp. $11.95. (WFS)

--A competent and occasionally challenging set of essays that identifies important areas of development for the future. Several cuts above the usual "gee whiz" examples of this genre, and suitable for a wide range of literate readers. Essays focus on Science and Technology, The Ocean, Planets and the Cosmos, Cities of the Future, Transportation, Systems Engineering, Architecture, Energy, Biomedial Engineering, Congress and Science Policy, Science Policy, Science Futures, The Creative Society, Nuclear Particles, Electrical Communication, The Computer, Materials for Tomorrow, and Peace, War, and Technology.
ABC/2-1-3/1-3-3-0/0

49. CALDER, Nigel (ed.). The World in 1984 (2 vols.). Baltimore: Penguin Books, 1965. 215 pp. and 205 pp., paperback.

--About 100 contributors from as many countries present short pieces on the next twenty years as seen through their specialties.

--(Ed. comment) Pretty much a blind men-and-elephant exercise.
AB/0-0-1/4-7-0-1/0

50. Japan Society of Futurology (ed.). Challenges From the Future: Proceedings of the International Future Research Conference. 4 Vols. Tokyo: Kodansha, Ltd., 1971.

--These papers from the Second International Future Research Conference in Kyoto are an absolute must on anybody's list of essential books on the future. An incredible mine of information--with a suitable assortment of garbage. You decide which is which. AB--not rated (recommended by two panelists after completion of Round II)

51. JUNGK, Robert and Johan GALTUNG (eds.). Mankind 2000. London: Allen & Unwin, Ltd., 1969. 368 pp. $7.95. (WFS)

--Diverse in content, but essential because it was based on papers given at the 1967 Inaugural Conference on Futures Research in Oslo, first explicitly worldwide futurists' congregation. AB/0-0-3/6-2-1-0/1

52. HARKINS, Arthur M. (ed.). 1971 American Anthropological Association Experimental Symposium on Cultural Futurology: Pre-Conference Volume. Minneapolis: Office for Applied Social Science and the Future, University of Minnesota, 1971. 190 pp. $5.50. Mimeo with soft cover.

--The 1971 AAA experimental Symposium on Cultural Futurology "devoted to the analysis of how traditional and modern cultures, past or present, have conceptualized their long-term futures" and organized as an extension of a comparable 1970 effort. Authors and their papers are: Kate Flore, "The Evolutionary Context of the Moon Landings;" Luther Gerlach, "Fumbling Freely into the Future;" Arthur Harkins, "Futurism in Man: Humanism, Social Technology and Survival;" Elise Boulding, "Familism and the Creation of Futures;" James Gifford, "Ideas Concerning Maya Concepts of the Future;" Thomas Maloney, "The Past as Future, or the View from Marlboro Country;" and Roger Wescott, "Traditional Greek Concepts of the Future."
A/5-0-2/1-1-3-0/1

53. Maruyama, Magoroh (ed.). 1970 American Anthropological Association Cultural Futurology Symposium: Pre-Conference Volume. Minneapolis: Office for Applied Social Science and the Future, University of Minnesota, 1970. 360 pp. $7.50. Mimeo with soft cover. (WFS)

--The first AAA Cultural Futurology Symposium brought together anthropologists and others to initiate the development of cultural futurology. The Pre-Conference Volume is unique since it contains the papers submitted by symposium members in advance of the meeting as well as mutual comments to one another's papers and the responses of each panelist to the comments others wrote on his/her paper. Authors include Magoroh Maruyama, Elise Boulding, Richard Jones, James Gifford, Robert McKnight, Margaret Mead, Roger Wescott, Steven Polgar, Sue-Ellen Jacobs, Thornton Page, James Dator, and Albert and Donna Wilson. Contributions are organized into four parts: "Conceptualization of Cultural Futurology," "Innovations in Cultural Past," "Anthropology and Futuristics," and "Some Specifics for Implementation."
A/3-0-2/3-1-2-0/2

54. BELL, Wendell and James A. MAU (eds.). The Sociology of the Future. N.Y.: Russell Sage Foundation, 1971. 464 pp.

--Essays focused on the notion of "images" of the future. The book contains (1) a theory of social change based on the concept of image of the future; (2) research strategies for studying the future; (3) a paradigm for the analysis of time perspectives and images of the future in social science literature, which is then applied by several of the authors in (4) an effort to tease out the implicit images of the future; (5) some examples of images of the future in action; (6) an annotated bibliography on social science studies of the future.
AB/3-3-2/3-1-0-0/1

55. OFSHE, Richard. The Sociology of the Possible. Englewood Cliffs, N.J.: Prentice-Hall, 1970. 391 pp. $5.95 paper.

--Designed as a "fresh-approach" textbook for an undergraduate sociology course. Draws on selections from a total of more than 1000 science fiction works reviewed. An elegant sampler and source guide to significant science fiction.
ABC/4-1-4/2-1-0-0/1

56. DUNSTAN, Mary Jane and Patricia W. GARLAN. Worlds in the Making: Probes for Students of the Future. Englewood Cliffs, N.J.: Prentice-Hall, 1970. 370 pp. $4.95 paper. (WFS)

--A hallmark work; the first modern text (source book, actually) for undergraduate futures instruction, widely used throughout the nation.

--(Poor) An attempt to palm off liberal ideology as the future. Absolute rubbish. ABC/0-1-2/4-4-1-1/0

57. THEOBALD, Robert (ed.). Futures Conditional. N.Y.: Bobbs-Merrill, 1972. 357 pp. $3.45. (WFS)

--A stimulating set of materials from many sources for the purpose of alerting readers--principally college students--to possibilities for the personal design of future alternatives. Theobald's own material is brief, but useful for this purpose.
ABC/0-1-0/3-4-4-1/0

58. KOSTELANETZ, Richard (ed.). Beyond Left and Right: Radical Thought for Our Times. N.Y.: William Morrow and Company, Inc., 1968. 436 pp. $2.95 paper. (WFS)

--An excellent collection of essays revealing "radical thought" about the future. "The new radical thought is non-ideological, non-utopian, and non-systematic; for it offers not final definitions but imaginative suggestions, expanding the mind rather than contracting it . . . (it) represents a style of looking at and thinking about contemporary problems, rather than an itemized program." Contributors are Kenneth Boulding, R. Buckminster Fuller, Herman Kahn, Anthony J. Wiener, Simon Ramo, Bernard J. Muller-Thym, Robert Theobald, Marshall McLuhan, Oliver L. Reiser,

Daniel Bell, Constantinos A. Doxiadis, Moshe Safdie, Edward T. Hall, John P. Eberhard, Joshua Lederberg, Gardner Quarton, Archibald T. McPherson, Gaylord Nelson, Leslie Fiedler, Edmund Carpenter, George A. Miller, Zbigniew Brzezinski, Hans J. Morgenthau, Karl W. Deutsch, Paul Goodman, and Richard A. Farson. Contributions are organized into eight sections, titled "Man and His Future," "Technology and Society," "People and Resources," "Education," "Defense and Diplomacy," and "Redesigning Society."

AB/1-5-3/3-1-0-0/0

C. TECHNOLOGY AND ITS IMPACTS

Some of the items in this section, as suggested by one of the comments on Ellul (no. 61) are not futuristic, but concern impacts of technology that have already occurred. However, to assess technologies in the future, we must understand the impacts they have made in the past. Such an understanding is an important background for appreciating documents in the subsequent section on population, resources, and environment.

59. DUBOS, Rene. Reason Awake. N.Y.: Columbia University Press, 1970. 280 pp. $6.95; $2.95 paper.

--Argues that science can no longer remain pure and that scientists must take responsibility for the consequences of their work.

BC/3-3-2/3-2-0-0/0

60. DUBOS, Rene. So Human an Animal. N.Y.: Scribners,1968. 267 pp. $6.95.

--Our present scientific, technological system, with its unidirectional reductionism, ravishes man's environment and resources and places him in danger of losing his humanness. The author pleads for a humanistic, holistic, ecologically-oriented concern that will place science in the service of man and the quality of his life.

--Pulitzer Prize winner and should be. A poetic scientist says what needs to be said about the limits of man's adaptability to his environment and the ridiculous reductionism by science to comprehend human ecology.

AB/2-4-2/2-3-0-0/0

61. ELLUL, Jacques. The Technological Society. N.Y.: Alfred A. Knopf, 1964. 449 pp.

--Written in 1954, translated into English by Wilkinson in 1964--the classic warning by a great theologian, "Sorry but it's probably all over. As a Christian I say it, but man's technology has gone so far it will probably do him in." (Paraphrasing the solid logical argument of the book that is difficult to refute.)

--The most acute critic of technocratic strain in futurist thinking.

--A now classic attack on "technique," or any standardized means for achieving a predetermined goal, through gloomy scenarios of progress-ive dehumanization. Must reading in combination with Mumford and Fuller.

--(Not rated by one panelist, who comments) Not futuristic, just anti-technology. Warnings about technocracy are not inherently

futuristic. They are interesting in terms of the supposed past or present and are of value to the futurist only in the way everything is of value.

AB/0-1-3/6-0-1-1/1

62. JUNGK, Robert. Tomorrow is Already Here. N.Y.: Simon and Schuster, 1954.

--An invitation to reflect on the danger of dehumanization on the part of technological progress.

63. MESTHENE, Emmanuel G. Technological Change: Its Impact on Man and Society. Harvard Studies in Technology and Society. Cambridge: Harvard University Press, 1970. 124 pp. $4.95; N.Y.: NAL Mentor Books, 1970. 127 pp. $1.25. Bib. pp. 96-124.

--An overview of the ongoing research of the Harvard Program on Technology and Society, woven into three chapters on social change, values, and economic and political organization. The opening comments quickly dispose of "three inadequate views:" the optimistic view of technology as a virtually unalloyed blessing, the pessimistic view of technology as an unmitigated curse, and the complacent historical view that technology is not worthy of special notice. Rather, technology is seen as outstripping traditional categories of thought, and established values and institutions, and necessary responses are suggested. The volume is concluded with a well-annotated bibliography of 70 items. AB/1-0-3/3-2-3-0/1

64. MUMFORD, Lewis. The Myth of the Machine: The Pentagon of Power. N.Y.: Harcourt, Brace, Jovanovich, 1970. 496 pp.

--Deals with "the collective obsessions and compulsions that have misdirected our energies, and undermined our capacity to live full and spiritually satisfying lives."

AB/0-1-4/3-4-0-1/0

65. SCHON, Donald A. Technology and Change: The New Heraclitus. Delta Books, 1967.

--A lucid explanation of why we want change and hate change . . . at one and the same time . . . an excellent introduction to why people and institutions resist change.

AB/1-2-3/2-4-1-0/0

66. CLARKE, Arthur C. "The Mind of the Machine," Playboy, December 1968.

--If I were asked to choose one article about the impact of the computer on the future, it would have to be this one. It goes beyond the usual concern about people being replaced in respect to manual labor, and alerts us to artificial intelligence.

BC--not rated

67. MICHAEL, Donald. Cybernation, the Silent Conquest. Santa Barbara, California: Center for the Study of Democratic Institutions, 1962. 43 pp.

--The impact of automation and the computer on man and society. ABC/0-3-1/2-4-2-0/1

68. DEWAN, Edmond (ed.). Cybernetics and the Management of Large Systems. N.Y.: Spartan Books, 1969. 264 pp.

--Sixteen essays intended to deal with the management of complexity in human and related systems. The essays are arranged in three sections: "General Aspects"; "Mathematical Aspects"; "Direct Application of Cybernetic or System Techniques." Contributors include Earl C. Joseph, Donald O. Walter, and Nicholas E. Golovin. AB/9-0-1/1-1-0-1/0

69. DECHERT, Charles R. (ed.). The Social Impact of Cybernetics. N.Y.: Simon and Schuster (Clarion paperback), 1966. 206 pp.

--Papers originally presented at a symposium on cybernetics and society held in Washington, D.C., in November 1964. "A common theme characterizes the studies published in this volume as it characterized the discussion at the Georgetown symposium. Our increasing ability to understand and control complex dynamic processes, including social processes, has profound implications for men's image of themselves and of the world they live in." From many different viewpoints, the authors raise the ethical question: "What values will be served by cybernetic technologies?" Determining the human values to be served by cybernetics may well be the most critical ethical challenge of this generation. ABC/6-0-2/1-1-0-3/0

70. VON FOERSTER, Heinz, J. D. WHITE, L. J. PETERSON, and J. K. RUSSEL (eds.). Purposive Systems: Proceedings of the First Annual Symposium of the American Society for Cybernetics. N.Y.: Spartan Books, 1968. 179 pp.

--The editors have assembled a set of twelve essays intended to deal with the management of complexity in human and related systems. The essays are arranged in three sections: "Man as a purposive system;" "Machines as purposive systems;" and "Man and Machines Together as Purposive Systems." Contributors include Nicolai M. Amosov, Margaret Mead, and Talcott Parsons. AB/8-1-2/1-1-0-0/0

71. WIENER, Norbert. The Human Use of Human Beings: Cybernetics and Society. Boston: Houghton-Mifflin, 1950; N.Y.: Doubleday Anchor, 1954. 199 pp. 95 cents.

--The author, who was an MIT mathematics professor credited with initiating the science of Cybernetics, maintained, "It is the thesis of this book that society can only be understood through a study of the messages and the communication facilities which belong to it; and that in the future development of these messages and communication facilities, messages between man and

machines, between machines and man, and between machine and machine, are destined to play an ever-increasing part."
AB/0-0-5/3-3-1-0/1

72. TAYLOR, Gordon Rattray. The Biological Time Bomb. N.Y.: World Publishing/NAL Books, 1968. 240 pp.

--A pessimistic overview by an authoritative popularizer of science, covering sex, transplantation, death, mind control, genetics, and the creation of life.
ABC/0-0-2/5-3-3-0/0

73. McLUHAN, Marshall and Quentin FIORE. The Medium Is the Massage: Inventory of Effects. Toronto: Bantam Books, Inc., 1967. 160 pp. Paper.

--Montage punctuated by print describes the medium the authors have adopted and shaped with considerable humor to probe change and stimulate viewer-readers to ponder the dramatic, often subtle, even subversive alterations in individuals' life styles and "patterns of social interdependence" brought about by the incessant massage of electric technology. Read and viewed casually the message barely titillates one's mental muscles; approached more deliberately with questions and personal probes, the intellectual rubdown can be both stimulating and invigorating.
ABC/0-2-1/5-2-1-0/2

74. MALONE, Thomas. "Weather Modification: Implications of the New Horizons in Research," Science, May 19, 1967.

--Focuses on the social and political implications of the developing possibilities to modify and control weather.
AB--not rated

75. BURNHAM, Jack. Beyond Modern Sculpture. N.Y.: Braziller, 1967.

--An excellent, futuristic statement of how technology and art interrelate, and how cybernetic technology is "destroying" art, and especially sculpture.
B--not rated

D. POPULATION, RESOURCES, ENVIRONMENT

The environmental crisis--natural and man-made--has served, as much as any special concern, to awaken us to the need for understanding where we are headed and what we must do to improve the chances for the survival of humanity.

76. Commission on Population Growth and the American Future. Population and the American Future. N.Y.: New American Library (Signet Special), March 1972. 362 pp. $1.50 paper.

--A broad overview of population growth and distribution, the economy, resources and the environment, government, education, human reproduction, immigration, and other topics, with scores of recommendations toward curbing population growth and improving the quality of life.

ABC--not rated (Ed. suggestion)

77. MEADOWS, Donella H., Dennis L. MEADOWS, Jørgen RANDERS, and William W. BEHRENS III. The Limits to Growth. N.Y.: Universe Books, 1972. 205 pp. $2.75 paper. (WFS)

--The initial, and non-technical, report of research with a world model of population, agricultural production, natural resources, industrial production, and pollution performed by a team from MIT under sponsorship of the Club of Rome. The study's emphasis upon the potential collapse of world systems sometime within the next one hundred years has prompted criticism for inadequate modeling and data base, for its sponsorship by a somewhat mysterious and elite group, and for its break with tradition by favoring early publication and dissemination of a non-technical report before it was reported to other professionals.

--Wildly controversial methodology, suspicious publicity maneuvers, but the book itself is undeniably a sociological phenomenon in its own right; interestingly enough, its conclusion that we have a century or so to reorient prevailing economic institutions and attitudes or else face system collapse has mirrored analysts in other fields as well, from ecology to law.

AB/0-0-3/6-3-0-1/0

78. "Blueprint for Survival." Entire issue of The Ecologist, Jan. 1972. Available in book form from The Ecologist, 73 Kew Green, Richmond, Surrey, England, for £1.60/$5.00 per copy including postage.

--A group of British ecologists and policy analysts bite the bullet on this one, recommending drastic changes in British policy toward population and economic growth; a national analogue to Falk,

This Endangered Planet (see next item).

--(Ed. note) Subsequent editions of The Ecologist, in addition to the June 1972 edition of The Teilhard Review, have contained articles criticizing and amplifying the 'Blueprint.'
AB/5-3-1/2-2-0-0/0

79. FALK, Richard. This Endangered Planet: Prospects and Proposals for Human Survival. N.Y.: Random House, 1972. 495 pp. $8.95.

--An analysis of the ecological/population/resource crisis in the context of the international political system, how that system inhibits institutional change that could deal with the crisis, and suggestions for an alternative world order based on the global interest; things they never talk about in International Relations 101. ABC/5-0-1/2-3-1-0/1

80. COMMONER, Barry. The Closing Circle: Nature, Man, and Technology. N.Y.: Knopf, 1971. 326 pp. $6.95.

--Cogently argues that the primary cause of the ecological crisis is technology, rather than population and affluence, and that widespread changes in productive technology and economic accounting are required to ward off irreparable degradation in 20 to 50 years. ABC/2-1-4/3-2-1-0/0

81. BOULDING, Kenneth E. "Ecology and Environment, Social Science and Modern Society," Transaction, Aug. 1971, pp. 38-44.

--About the orders of magnitude and basic changes we need to learn; fundamental to comprehending the epoch we are into.
AB/7-0-0/3-3-0-0/0

82. BROWN, Harrison. The Challenge of Man's Future. N.Y.: Viking, 1954. 290 pp. (15th Printing, 1967). $1.65 paper. (WFS)

--Early but still convincing correlational forecast of resource-population-growth relationships.
ABC/0-0-1/4-6-1-1/0

83. BROWN, Harrison, James BONNER, and John WIER. The Next Hundred Years: Man's Natural and Technological Resources. N.Y.: Viking, 1957; Compass Books Edition, 1963. 193 pp. $1.70 paper. (Updated in 1967 as The Next 90 Years.) (WFS)
ABC/1-0-0/4-7-0-1/0

84. EWALD, William R. (ed.). Environment for Man: The Next Fifty Years (Indiana University Press, 1967); Environment and Change: The Next Fifty Years (Indiana, 1968); Environment and Policy: The Next Fifty Years (Indiana, 1968). $2.95, $4.95, $4.95 respectively. (WFS)

--The original interdisciplinary commission attempting to bring values and technology together in a look at how to go from now into the next fifty years of the U.S.
AB/0-1-3/2-4-2-0/1

85. McCUE, Gerald M. and William R. EWALD, Jr. Creating the Human Environment. Urbana: University of Illinois Press, Midwest Research Institute, 1970. 339 pp. $4.95 paper.

--To our knowledge, this volume reports the first comprehensive effort by a profession in modern times to make a systematic forecast for the future of an entire profession. Current A.I.A. activities indicate the profession got the message.

--Looks for potential system breaks in U.S. culture and proposes institutional mechanisms. Projections to year 2000 in Appendix contrasts basic future indices.
AB/4-1-1/2-3-1-0/1

86. LANSBERG, Hans and others. Resources in America's Future. Baltimore: Johns Hopkins Press, 1963.

--Don't forget who started quantifying and projecting ten years ago. Still valuable. A/3-2-1/2-4-1-0/0

87. Goals for Dallas. Dallas: Graduate Research Center of the Southwest, 1966. 310 pp.

--A natural successor to Goals for Americans (see President's Commission on National Goals) and the fountain-head from which most local and regional goal-choosing and goal-planning activities today departed. ABC/8-0-2/1-0-1-0/1

88. BANFIELD, Edward C. The Unheavenly City: The Nature and Future of Our Urban Crisis. Boston: Little, Brown and Co., 1968. 308 pp. $6.95.

--A fearless and unsympathetic examination of the "problems" of the city. Concludes that many of these are phony problems, invented by middle class intellectuals who simply cannot resist the temptation to become do-gooders.
AB/0-2-4/4-1-0-2/0

89. MUMFORD, Lewis. The Urban Prospect. N.Y.: Harcourt, Brace, Jovanovitch, 1968.

--Takes issue with most current concepts of city planning; calls for regional planning, with government aid, designed to preserve essential urban functions and to foster communal interaction. AB/0-6-2/1-3-1-0/0

90. Editors of Progressive Architecture. Toward the Third Millenium. 1966.

--Excellent systemic overview of science and construction.
A/8-1-1/3-0-0-0/0

91. JENCKS, Charles. Architecture 2000: Predictions and Methods. London: Studio Vista Ltd., 1971; N.Y.: Praeger Paperbacks, 1971. 128 pp. $3.95 paper.

--A sophisticated integration of futures thinking, open systems

theory, and six architectural traditions. 109 illustrations.
AB--not rated (Ed. suggestion)

92. DOXIADIS, Constantinos. Ekistics: An Introduction to the Science of Human Settlements. N.Y.: Oxford, 1968.

--Though I personally am not attracted to his megalopolis (I believe the thrust of cybernetic technology may be towards decentralization and the death of cities), Doxiadis' views are nonetheless of extreme importance to any futurist.
AB--not rated

93. MASINI, Eleonora (ed.). Space for Man. Rome: IRADES, Edizioni Previsionali, 1972 (in press).

--A conceptualization of man and his basic needs and a hypothesis of space for man in the future related to such needs.
A--not rated

94. MYRDAL, Gunnar. The Challenge of World Poverty: A World Anti-Poverty Program in Outline. N.Y.: Pantheon, 1970. 518 pp. $8.95.

--Summarizes the research and conclusions of Asian Drama and goes on to offer radical proposals for facing Third World problems. AB/1-1-5/2-3-1-0/0

95. PADDOCK, William and Paul. Famine--1975! America's Decision: Who Will Survive? Boston: Little, Brown, 1967. 276 pp.

--A well-documented book underlining the theme that famine is inevitable in the underdeveloped nations. All of the familiar hopes about breakthroughs in synthetic foods, hydroponics, desalinization, ocean farming, fertilizers and land reform are smashed by the authors.
ABC/3-1-5/1-0-3-0/0

96. McPHERSON, Archibald T. "Synthetic Food for Tomorrow's Billions," Bulletin of the Atomic Scientists, Sept. 1965.

--An important plea for the development of synthetic food. Good, brief, historical development of agriculture, and the possibilities of truly "pure" food.
B--not rated

E. GOVERNMENT AND INTERNATIONAL RELATIONS

This category is rather skimpy, suggesting the need for specialized futurists to join in with general futurists in suggesting essential reading.

97. LECHT, Leonard A. Goals, Priorities and Dollars: The Next Decade. N.Y.: The Free Press, MacMillan, 1966. 365 pp. $6.95.

--First general publication of an important, ongoing program, which used as its departure point the 1960 Commission on National Goals statement.

AB/3-2-3/1-2-2-0/0

98. PERLOFF, Harvey (ed.). The Future of the U.S. Government: Toward the Year 2000. Prefaced by Daniel Bell. N.Y.: Braziller, 1971. 388 pp. $7.95. (WFS)

--Chief product to date of the Commission on the Year 2000 of the American Academy of Arts and Sciences. Only major work on politics to date focusing on the structure of American polity. AB/1-1-3/3-5-0-0/0

99. GROSS, Bertram M. "Friendly Fascism: A Model for America," Social Policy, Nov./Dec. 1970, pp. 44-53.

--An outline of post-industrial "techno-urban fascism"--a likely development in the absence of fresh counterstrategies. A sobering corrective to those who overestimate the extent of Reich's "Consciousness III," or those who feel that "It Can't Happen Here." For a more academic treatment in the context of evolutionary and administrative theory, see Gross' "Changing Styles of Planning," Public Administration Review (Special Issue on Changing Styles of Planning in Post-Industrial America, Herman Mertins, Jr. and Bertram M. Gross, Co-Editors), XXXI:3, May/June 1971, pp. 259-297, especially pp. 285-287 on "The Possibility of Techno-Urban Fascism."

AB/3-2-0/4-1-2-0/1

100. KAHN, Herman. Thinking About the Unthinkable. N.Y.: Avon Books, 1966.

--(Ed. note) The "Unthinkable" is nuclear war. It has been said that this book--and others by Kahn--have been influential in forcing Pentagon planners to begin to think about the consequences of their actions.

AB/0-2-1/3-3-2-1/1

101. LEWIN, Leonard.* Report from Iron Mountain. N.Y.: Dell, Nov. 1967; 1969. $1.95 paper.

--The kind of "science fiction" that isn't just a stone's throw from reality, it is reality; a report written in straight Pentagonese on the rational necessity for protracted conflict; welcome to the monkey house.

--(Ed. note) *The book was originally published as a secret report of an anonymous "Special Study Group" set up to determine the consequences of a permanent peace. Lewin confesses all in the New York Times Book Review (March 19, 1972, p. 47): "What I intended was simply to pose the issues of war and peace in a provocative way . . . to caricature the bankruptcy of the think-tank mentality by pursuing its style of scientistic thinking to its logical ends . . . if the 'argument' of the Report had not been hyped up by its ambiguous authenticity--is it just possibly for real?--its serious implications wouldn't have been discussed either. At all. This may be a brutal commentary on what it sometimes takes to get conspicuous exposure in the supermarket of political ideas, or it may only exemplify how an oblique approach may work when direct engagement fails." AB/3-0-3/2-3-0-1/1

102. BLACK, Cyril E. and Richard A. FALK (eds.). The Future of the International Legal Order. 5 Vols. Princeton University Press, 1969-1973.

--This large scale project is an attempt by international laywers and social scientists to engage in non-utopian forecasting, descriptive and prescriptive, on the capacity of international law and organization to handle emerging international policy issues. Academic in tone and substance, this series is important in marking a growing reorientation of writers in this field away from excessively legalistic or formalistic views of international relations towards a consideration of domestic/international issues as part of a complex, evolving, multi-actor world system. A--not rated

103. GALTUNG, Johan. "On the Future of the International System," Journal of Peace Research, 1967.

--One of the most balanced of many treatments of the international system. Especially important in treating the role of the underdeveloped countries. AB/5-1-1/3-2-1-0/0

104. BORGESE, Elisabeth Mann. "The World Communities," The Center Magazine, IV, Oct. 1971, pp. 10-16.

--Outlines the author's plan for an alternate world order based on functional, transnational organizations, growing out of concern with an organization for governing the ocean. AB/6-1-2/1-2-0-1/0

105. PECCEI, Aurelio. The Chasm Ahead. N.Y.: Macmillan, 1969. 297 pp.

--An analysis of the widening gap between American and European society and macroproblems of our time.
ABC/1-2-4/3-0-3-0/0

106. SAGAN, Carl and I. S. SHKLEVSKII. Intelligent Life in the Universe. Holden-Day, 1966.

--The search for life in the universe, and the almost certain probability of finding it, from an American and Russian perspective.

--(Ed. note) This book is a rather odd one to categorize, but the improbable advent of interplanetary or even intergalactic relations would surely change the nature of interplanetary relations! BC--not rated

F. BUSINESS AND ECONOMICS

This category is particularly skimpy, and four items have been added to draw attention to the revolution in corporate structure (also see Drucker, no. 11) and the need for rethinking our economic assumptions.

107. BARBER, Richard J. The American Corporation: Its Power, Its Money, Its Politics. N.Y.: E. P. Dutton, 1970. 309 pp. $7.95.

--A well-written overview of a "silent revolution" that "most people have failed to appreciate," and the massive implications for the political and economic order in that "Business is at the very center of the confluence of forces that are transforming the society" (p. 6).

ABC--not rated (Ed. suggestion)

108. THEOBALD, Robert. The Economics of Abundance: A Non-Inflationary Future. N.Y.: Pitman, 1970. 151 pp. $5.95.

--Probably the most lucid statement of the compelling (if "heretical") and significant ideas of Bob Theobald, a practicing idealist who touches the minds and hears of youth in a unique way with important results.

Also see most recent book by Theobald, Habit and Habitat. (Prentice-Hall, 1972. 277 pp. $8.95.)

AB/1-3-2/5-0-1-1/0

109. MISHAN, E. J. "Making the Future Safe for Mankind," The Public Interest, No. 24, Summer 1971.

--A criticism of the problems of high-consumption macerialism, and the future consequences.

AB/7-0-1/1-3-0-1/0

110. MISHAN, Ezra J. The Costs of Economic Growth. N.Y.: Praeger, 1967. 190 pp. $6.50.

--"The essay urges a reconsideration of the place of growth in the economic policy of a technologically advanced society . . . so entrenched are the interests involved, commercial, institutional, and scientific, and so pervasive the influence of modern communications, that economic growth has embedded itself in the ethos of our civilization."

"The general conclusion of this volume is that the continued pursuit of economic growth by Western Societies is more likely on balance to reduce rather than increase social welfare" (p. 171).

--An important attack on the conventional wisdom of economists. A--not rated (Ed. suggestion)

111. MISHAN, E. J. Technology and Growth: The Price We Pay. N.Y.: Praeger, 1969. 193 pp.

--A popular version of The Costs of Economic Growth, written to convince the public "of the need of radical change in our habitual ways of looking at economic events." AB--not rated (Ed. suggestion)

112. LINDER, Staffan Burenstam. The Harried Leisure Class. N.Y.: Columbia University Press, 1969. 182 pp. $7.00.

--Questions the economists' tenet that economic welfare increases whenever per capita national income rises. It is argued that a resource technology has done nothing to enlarge time, which is amply consumed by product selection and maintenance. A--not rated (Ed. suggestion)

G. THE INDIVIDUAL, FAMILY, AND YOUTH

This is a rather unwieldy category, but suggests certain inter-relationships that finer categorization might ignore. Books on the emerging feminist revolution (nos. 122-124) are probably only a sampling of good ones now available, and it is recommended that readers keep posted by subscribing to the new periodical, Ms.

113. MASLOW, Abraham H. Religions, Values and Peak Experiences. Viking Press, 1971. Originally published by Ohio State Press, 1964.

--The answer for pessimists: Maslow's look into healthy self-actualizing people and their sources of inspiration. The only antidote I've found for Ellul.
AB/3-1-4/2-2-0-0/1

114. MAY, Rollo. Man's Search for Himself. N.Y.: Signet, 1953.

--Identity self-sought, something in a time of change must be the beginning, if the outcome is to be human and healthy.

--Futuristic? Then so is Jung, Rogers, Sartre, Camus, etc.
AB/3-2-2/1-2-2-0/1

115. MARTY, Martin E. The Search for a Usable Future. N.Y.: Harper & Row, 1969.

--Mankind needs a more adequate concept of where it is going and why. Based on Christian ethics and the Christian origins of much of contemporary culture, a "plan" for the future is developed in which love of justice is a strong component, but which takes careful account of the complexities involved.
AB/5-2-3/1-1-1-0/0

116. SCHELLING, Thomas C. "On the Ecology of Micromotives," The Public Interest, No. 25, Fall 1971.

--A lucid analysis of why things don't always work out the way people want them to, this article expands on Garrett Hardin's celebrated essay, "The Tragedy of the Commons," and possibly improves on it as an ideal example of behavioral explanation.
AB/8-0-0/2-2-0-0/1

117. TURNER, Charles Hampden. Radical Man. Cambridge, Mass.: Schenkman Publishing Company, 1970. 433 pp.

--An outline of the human process of psychosocial development with the indication that only a human concern which is translated into action can save mental and social integration.
AB/4-4-1/2-0-1-1/0

118. VICKERS, Geoffrey. Value Systems and Social Process. N.Y.: Basic Books, 1968. 217 pp. $6.50.

--"The theme of this book is the process by which men and societies develop and change the values by which they live" (p. xi). AB/4-2-3/1-2-0-1/0

119. WESTIN, Alan F. Privacy and Freedom. N.Y.: Atheneum, 1967.

--Excellent example of down-to-earth application of futurist thinking in a critical problem area.

--(Ed. note) Perhaps equally good, if not better, is Arthur R. Miller, The Assault on Privacy: Computers, Data Banks, and Dossiers (University of Michigan Press, 1971. 333 pp. $7.95). AB/6-2-3/1-0-1-0/0

120. McLUHAN, Marshall, with Wilfred WATSON. From Cliche to Archetype. N.Y.: The Viking Press, 1970. 213 pp.

--"From Cliche to Archetype is an honest, careful piece of work, seriously intended and worked at for four years by perhaps the most brilliant mind in Canada . . .. For McLuhan a cliche is a probe, an intellectual device, a concept which he regards as a kind of touchstone or yardstick which can be used with profit to assess, understand or illuminate the processes of communication, be they instant communication of today or be they extended overtime as history, cultural change or the mechanisms of survival . . .. The cliche probe is used remorselessly and continually. The whole book consists of attempt after attempt to apply it to the widest possible ranges of civilized experience, elaborating where it seems to work, and ruthlessly and abruptly terminating the attempt where it does not . . .. McLuhan is the first to try to explain in social terms where archetypes come from, how they are formed, and what the processes are that bring them into being." (Review by Dr. D. C. Williams in The London (Ontario) Free Press, New Year's Edition, 1971.)
AB/3-2-2/1-2-1-0/2

121. CARPENTER, Edmund. They Became What They Beheld. N.Y.: Ballantine, 1970, unpaged. $3.95.

--An exciting combination of text by anthropologist Carpenter, who makes Marshall McLuhan's concepts intelligible, and photographer Ken Heyman, combining to produce sharp insights into the present. B/5-2-1/1-1-2-0/1

122. KIRKENDALL, Lester A. and Robert N. WHITEHURST. The New Sexual Revolution. D. W. Brown, 1971.

--A sensible anthology of why interpersonal relations will and must change. AB/8-2-1/1-1-0-0/0

123. HOLE, Judith and Ellen LEVINE. The Rebirth of Feminism. N.Y.: Quadrangle, 1972. $10.00.

--The best, single comprehensive guide on the impact of the feminist movement in all its forms on society.
AB--not rated

124. GORNICK, Vivian and Barbara K. MORAN (eds.). Woman in Sexist Society: Studies in Power and Powerlessness. N.Y.: Basic Books, 1971. $12.50.

--A hodgepodge, but still a valuable anthology covering the role of women in sex and marriage, literature and society, work, and with regard to social issues.
AB--not rated

125. FRANCOEUR, Robert. Utopian Motherhood: New Trends in Human Reproduction. N.Y.: Doubleday, 1970. 278 pp. $6.95. (WFS)

--A major contribution to our understanding of the biological revolution by a person who is both a scientist and a theologian--hence he provides a good combination of the facts and possibilities of new modes of reproduction with a discussion of possible social and personal problems.
BC--not rated

126. MEAD, Margaret. Culture and Commitment: A Study of the Generation Gap. N.Y.: Doubleday and Natural History Press, 1970. 113 pp. $5.00; $1.95 paper.

--An illuminating description of three types of culture--postfigurative, cofigurative, and prefigurative--in the world today with the assertion that "we are in fact entering a totally new phase of cultural evolution" through the increasing shift to prefigurative culture "in which the past is instrumental rather than coercive." AB/0-1-5/5-1-1-0/0

127. ROSZAK, Theodore. The Making of a Counter Culture. Garden City, N.Y.: Anchor Books, 1969. 303 pp. $1.95 paper.

--Starting with the assumption that most of what is happening today that is new--in education, the arts, politics and social relations--is the creation of youth, Roszak examines leading influences on the youth culture. After turning to the "myth of objective consciousness," he forecasts a new utopia if, like the proponents of youth culture, all society would ask, "How shall we live?" rather than "How shall we know?"

--Sometimes pedantic and academic, this book nonetheless represents one of the first adequate descriptions of The Generation Gap--and from the far side of it, too!
ABC/0-0-4/4-3-1-1/0

128. MICHAEL, Donald N. The Next Generation: The Prospects Ahead for the Youth of Today and Tomorrow. N.Y.: Random House, Vintage Books, 1963. 207 pp. $1.65 paper. (WFS)

--Discusses economy, technology, family, and education over the next twenty years.

--Still stands as a classic statement about the possible society our children will inherit; in the tradition of Profiles of the Future. ABC/1-3-2/4-2-1-0/0

129. It's Your Turn...A Report to the Secretary of State by the Committee on Youth. Ottawa: Information Canada, 1971. 216 pp. + bibliography. Paper.

--Legalization of marijuana and hashish, a federally financed national hostel system, the disbanding of the Company of Young Canadians and a drastic review of all educational systems were among the major recommendations of this royal commission appointed to analyze the problems of youth in Canadian society. Fundamental to the whole report is the assumption that "youth dissatisfactions are not a function of age but are a forecast by the young of larger societal changes."
AB/10-1-0/1-0-0-0/1

H. COMMUNICATIONS AND EDUCATION

Communications and education are too often considered separately, and this category attempts to join them. For further information, see items 232 and 233.

130. Editors of Science and Technology. International Communications, Inc. N.Y.: Conover-Nast, April 1968.

--The impact of the new electronic communication.
A/7-2-0/1-1-0-1/1

131. McLUHAN, Marshall. Understanding Media: The Extensions of Man. N.Y.: McGraw-Hill, 1964. 365 pp. $7.50.

--How can any list of essential futuristic books miss this seminal, and controversial book? (Ed. note: Easily--and we're probably missing several hundred others.)
B--not rated

132. Sloan Commission on Cable Communications. On the Cable: The Television of Abundance. Report of the Commission. N.Y.: McGraw-Hill, 1971. 256 pp. $2.95 paper.

--An exemplary case of a Commission forced to seriously probe the future, resulting in an ostensibly cautious estimate that the rate of growth in cable systems will "leap precipitously" in this decade. Although openly listing "Issues We Did Not Confront" (a rarity in our purportedly scientific age!), the Commission leans toward optimism in describing the impacts of a revolution on the horizon.
AB--not rated (Ed. suggestion)

133. The Conference Board. Information Technology: Some Critical Implications for Decision-Makers. Conference Board Report No. 537. The Conference Board, Inc., 845 Third Ave., New York, N.Y. 10022, 1972. 240 pp. $25.00 for Non-Associates; $5.00 for Associates and Educational.

--A report developed by 42 experts serving on 8 panels devoted to information technology, the individual, business, antitrust policy, education, government and politics, and the changing information environment. The chapter on education by Marvin Adelson discusses topics such as the shift in education from the communication of knowledge to the utilization of knowledge, libraries as the core of the education process, the trend to transform portions of education into a "goods" industry by the creation of media packages, the distinction between "real"

and "informational" environments and possible initiatives for government and education. The final chapter by John McHale provides a variety of topologies of potential impacts of the new information environment, while discussing global aspects and the need for planetary policies.

A--not rated

134. Organisation for Economic Co-operation and Development. Information for a Changing Society: Some Policy Considerations. Paris: OECD, 1971. 48 pp. $1.75.

--Report of an Ad Hoc Group on Scientific and Technical Information, convened to deal with the present fragmented state of information systems at a time when information is increasingly "the key to the wise management of the future." Many recommendations are made; of particular interest is the one "that the re-evaluation of educational requirements of modern societies take full account of the need for information transfer systems better adapted to the continuing re-education of adults. Totally new institutional arrangements must be evolved, involving opportunities and motivation for education concurrent with daily activities. Research to foresee and prepare for these developments is urgently needed" (p. 47).

A--not rated (Ed. suggestion)

135. WAYS, Max. "Don't We Know Enough to Make Better Public Policies?" Fortune, April 1971, pp. 64+.

--Apparently, we do not . . . as Ways raises some fundamental questions about the adequacy of our knowledge and its application to action, and advocates more effort devoted "to the bewildering complexities of transdisciplinary attack on the new areas of ignorance . . ." AB/4-2-1/1-5-0-0/0

136. WAYS, Max. "Oh Say Can You See? The Crisis in Our National Perception," Fortune, Oct. 1968.

--Is the country really in a mess? Or have we become demoralized?

ABC/8-2-0/1-2-0-0/0

137. YOUNG, Michael. The Rise of the Meritocracy 1870-2033. London: Thames and Hudson, 1958; Penguin Books, 1961. 190 pp. $1.50. (WFS)

--Description of evolution phases that from the 19th century to the 21st century lead to meritocracy.

--Full of nice ironies on the kind of world we deserve if advancement is based on intelligence testing.

AB/0-3-0/4-2-3-0/1

138. HUSÉN, Torsten. Present Trends and Future Developments in Education: A European Perspective. The Peter Sandiford Memorial Lectures. Toronto: The Ontario Institute for Studies in Education, Occasional Papers No. 8, 1971. 42 pp.

--An astute and succinct overview of educational concerns at all levels, with concluding comments on the "learning society" of the future. An excellent introduction for the non-educator. AB--not rated (Ed. suggestion)

139. ILLICH, Ivan. Deschooling Society. N.Y.: Harper & Row, 1971. 116 pp. $5.95.

--Attacks schooling as the church of industrial society and advocates radically new systems involving learning webs, skill exchanges, peer matching and professional educators.

--(Ed. comment) Radical chic for educators.
ABC/1-1-5/2-3-0-0/1

140. FULLER, Buckminster. Education Automation: Freeing the Scholar to Return to his Studies. Carbondale: Southern Illinois University Press, 1962; Arcturus Books Edition, 1964. 88 pp.

AB/3-1-2/2-3-1-0/1

141. COLLIER, Barnard Law. "Brain Power: The Case for Bio-Feedback Training," Saturday Review, April 10, 1971. 5 pp.

--Surveys current developments in the burgeoning new fields of bio-feedback and visceral learning. The implications for human learning are great, ranging from control of brain functions, to control of moods (the alpha feeling), and to the control of physical health and well being.
ABC/9-0-0/1-2-0-0/1

142. U.S. Congress, House Committee on Education and Labor. Alternative Futures in American Education. Appendix 3 to Hearings on H.R. 3606 and Related Bills to Create a National Institute of Education. Washington: USGPO, Jan. 1972. Committee Print, 446 pp.

--May be difficult to acquire, but the effort will be well worth it, for this is the best compendium of education-related futures thinking that I know of. Especially see Willis W. Harman, "The Nature of Our Changing Society: Implications for Schools," pp. 6-53. A--not rated (Ed. suggestion)

143. BRUNER, Jerome. Toward a Theory of Instruction. Cambridge, Mass.: Harvard University Press, 1966.

--The child should be taught (or guided) in such a way as to develop, and appeal to, the sense of intellectual mastery and intellectual dignity. AB/6-1-2/1-2-0-0/2

144. PIERCE, Chester M. "The Pre-Schooler and the Future," The Futurist, Vol. VI, No. 1, Feb. 1972, pp. 13-15.

--Makes a variety of suggestions for the content of an early learning curriculum, which should develop cognitive skills as well as skills in affective and cognitive aspects of life. The child, for example, needs to learn about the concept of

limits and limitlessness "infinity," in our lives as well as conflict resolution and decision making. He should also learn occupational options, i.e., the various ways he can justify his existence when he grows up. The purpose of the curriculum is to help today's pre-schooler become the cosmopolite of the 21st century who sees himself as part of the global as well as the local scene.

ABC/2-1-4/1-3-0-1/1

145. COLEMAN, James S. "The Children Have Outgrown the Schools," Psychology Today, Feb. 1972 (?).

--The author of the controversial "Coleman Report," Coleman observes that we have moved from an information-poor society to an information-rich society, but that our educational system is barely aware of this continuing change. Instead of trying to pass on information with which most of the students are already familiar, he urges the schools to prepare students for more varied and realistic jobs and work careers, especially in the public services, by combining classroom work with work experiments outside the schools.

ABC/7-2-0/1-1-0-0/2

146. KOZOL, Jonathan. Free Schools. Boston: Houghton-Mifflin, 1972.

--Beyond the romanticism of recent years, this sober analysis suggests new directions for the cutting edge of educational reform. For a short overview, see Jonathan Kozol, "Free Schools: A Time for Candor," Saturday Review, March 4, 1972, pp. 51-54. AB/7-3-0/1-1-0-0/1

147. MORPHET, Edgar L. and David L. JESSER (eds.). Designing Education for the Future. N.Y.: Citation Press. The editors have assembled an impressive seven volume series growing out of a multi-state project involving Airzona, Colorado, Idaho, Montana, Nevada, Nex Mexico, Utah, and Wyoming. The volume titles and publishing dates are:

1. Prospective Changes in Society by 1980. 1967. 268 pp.
2. Implications for Education of Prospective Changes in Society. 1967. 323 pp.
3. Planning and Affecting Needed Changes in Education. 1967. 317 pp.
4. Cooperative Planning for Education in 1980: Objectives, Procedures and Priorities. 1968. 105 pp.
5. Emerging Design for Education. 1968. 240 pp.
6. Planning for Effective Utilization of Technology in Education. 1969. 372 pp.
7. Preparing Educators to Meet Emerging Needs. 1969. 156 pp. AB/3-1-2/2-1-2-1/1

148. Living and Learning: The Report of the Provincial Committee on Aims and Objectives of Education in the Schools of Ontario (commonly referred to as the Hall-Dennis Report). Toronto, 1968. 221 pp. Paper.

--This lavishly illustrated document, which marked the second coming of Deweyism in Ontario, was produced and immediately received a considerable amount of public acclaim, much of it uncritical. Feeling that mankind was on the eve of a new era in history, the committee felt moved to suggest extensive reforms in the schools. ". . . ours is no vision of education for a provincial priority or traditional national pride, but for the good of all men. It is a vision of greatness and dignity for the individual through the exercise of public and private responsibility."

ABC/11-0-0/1-0-0-0/1

149. EURICH, Alvin C. (ed.). Campus 1980: The Shape of the Future in American Higher Education. N.Y.: Delacorte, 1968. 327 pp.

--Largely descriptive forecasts by the top writers in higher education. ABC/2-3-0/1-6-0-0/1

150. Report on Higher Education. Washington: U.S. Department of Health, Education, and Welfare. March 1971. 130 pp. 75 cents.

--Known as the Newman Report, this survey of problems and the resulting proposals by a constituency-free Task Force offers a fresh and readable overview. A second report by essentially the same group will be published in 1972.

AB/7-3-0/2-0-0-0/1

151. PORTER, John et. al. Towards 2000: The Future of Post-Secondary Education in Ontario. Toronto: McClelland and Stewart Ltd., 1971. 176 pp. + bibliography. Paper.

--This report was designed as a submission to the Commission on Post-Secondary Education in Ontario; however, it merits attention far beyond the boundaries of one province. Essentially in Towards 2000 a group of educators speculate on the nature of our world thirty years from now. A few random quotations will serve to convey the "flavour" of the report. "The beginnings of the post-industrial society are already with us," "The post-secondary system as a whole must be multifunctional and highly differentiated," "The students of the future will demand of post-secondary education a return to the vision of man as a whole," "The Ph.D. may be out of date," "The development of education is fundamental to the greater equalization of regional economic opportunities," "The truly Canadian civilization and culture for which our universities are the nurseries must be a French Canadian civilization and culture as well as an English speaking one." This report provides refreshing reading for two reasons: (1) Existing institutions are criticized; however, this is done in a constructive manner based on careful research; (2) Unlike so many similar reports, this one is eminently readable.

AB/8-0-2/2-0-0-0/1

I. FUTURES "CLASSICS"

It is problematic as to which items should be enshrined in the "classics" category. The Challenge of Man's Future (no. 82) was published in 1954 but is still contemporary. Goals for Americans (no. 161), although published in 1960, is no longer a guide to present action but is worthy of re-consideration. Many other "classics" could be suggested and it is well that we consider whose visions in the past have proven essentially correct. Fictional classics such as Brave New World are listed along with other works of science fiction.

152. WAGAR, W. Warren. The City of Man: Prophecies of a World Civilization in Twentieth-Century Thought. Boston: Houghton-Mifflin, 1963. 310 pp. Penguin paper, $1.65. (WFS)

--A "classic" about the classics! A comprehensive, scholarly, and highly readable "biography" of the vision of cosmopolis throughout history, as it has appeared in the East and West, in ancient Greece and Rome, in the Middle Ages, and in the present. Prophetic thinkers using various approaches are analyzed: the biological approach of Huxley and Teilhard de Chardin, the historical approach of Toynbee and Sorokin, and the "lines and spirals" approach of Hocking, Jaspers, Mumford, and Kahler. In contrast to these independent thinkers, various doctrinaire views are explored. The prospects of synthesis in philosophy, religion, knowledge, government, culture, and economics are dealt with in separate chapters, with a brief consideration in the final chapters of what might happen after a world civilization is attained.

A--not rated (Ed. suggestion)

153. MORRIS, William. "How We Live and How We Might Live," Signs of Change, 1888. (Most readily available in May Morris, Collected Works of William Morris.)

--This 22-page essay succinctly touches on many points of contemporary social criticism, attacking the slavery of profit and the "comfortable unconscious oppressors," while advocating good health, widespread liberal education, useful work, and pleasant surroundings. Sound familiar?

AB--not rated (Ed. suggestion)

154. MORRIS, William. On Art and Socialism: Essays and Lectures. Selected with an Introduction by Holbrook Jackson. London: John Lehmann, 1947. 335 pp.

--Lectures and essays of William Morris (1834-1896). Especially see "The Aims of Art" (issued by The Commonwealth

as a pamphlet, 1887), in which there are two scenarios for society: the optimistic view and the pessimistic view. The former posits that "machinery will go on developing, with the purpose of saving men labour, till the mass of the people attain real leisure enough to be able to appreciate the pleasure of life; till, in fact, they have attained such mastery over Nature that they no longer fear starvation as a penalty for not working more than enough. When they get to that point they will doubtless turn themselves and begin to find out what it is that they really want to do" (p. 92).

The "Pessimist view" envisions the working class becoming more and more degraded, learning to bear everything. "Nor will their masters be better off: the earth's surface will be hideous everywhere . . . Art will utterly perish . . . Science will grow more and more one-sided, more incomplete, more wordy and useless, till at last she will pile herself up into such a mass of superstition, that beside it the theologies of old time will seem mere reason and enlightenment" (p. 94).

Both scenarios appear to contain some stunning truths for our time. ABC--not rated (Ed. suggestion)

155. DE TOCQUEVILLE, Alexis, in J. P. MAYER and Max LEMER (eds.). Democracy in America. N.Y.: Harper & Row, 1966. 485 pp. (Originally published 1835-1840.)

--de Tocqueville's uncanny capacity to identify political and societal forces and to make reasoned searching forecasts which a century has eminently validated makes this a classic case study for futurists.
ABC/0-0-3/3-2-1-1/3

156. FULLER, R. Buckminster. Nine Chains to the Moon. Carbondale, Illinois: Southern Illinois University Press, 1970. 357 pp.

--Perhaps Fuller's outstanding work. Even more remarkable in light of its original publication date--1938. A treasure house of innovative and wonderfully stated generalizations of the physiological, intellectual and mechanical functions of humans. Can be read profitably again and again. A must.
AB/2-1-4/2-3-1-0/0

157. WHYTE, Lancelot Law. The Next Development in Man. N.Y.: Holt, 1948.

--(Ed. note) For a contemporary statement by Whyte, advocating a Universal Human Program for 2000 A.D., see "Recover Values in a New Synthesis," Main Currents in Modern Thought, 26:1, Sept.-Oct. 1969, pp. 3-9.
AB/2-4-4/1-1-0-1/0

158. Subcommittee on Technology to the U.S. National Resources Committee. Technological Trends and National Policy. Washington: U.S. Government Printing Office, 1937.

--The basic reference on what is today fashionably called "technology assessment." The first sections--written by Ogborn, Gilfillan, and others--should be read by everyone interested in this emerging activity, especially those concerned with achieving real-world results.
A/2-2-2/3-3-1-0/0

159. President's Research Committee on Social Trends. Recent Trends in the United States. N.Y.: McGraw-Hill, 1933.

--Under the guidance of William F. Ogburn, this work is the granddaddy of the whole social indicators movement and an integral part of the futures field.
AB/3-1-4/3-1-1-0/0

160. OGBURN, William F. On Culture and Social Change. Edited by Otis Dudley Duncan. Chicago: University of Chicago Press, 1964. $2.95 paper.

--A collection of some of the most important papers by William Fielding Ogburn, who, along with S. C. Gilfillan, may be considered one of the intellectual fathers of futures research.

--(Ed. comment) It is important to consider the nature of the child being fathered here. Ogburn, as a sociologist interested in the future via social indicators, is certainly one of the first social scientists to consider the future, but there are many intellectuals well before him--Wells, Marx, de Toqueville, and even Plato--who have written about the future or alternative futures.
A/4-2-2/2-2-1-0/0

161. President's Commission on National Goals. Goals for Americans. N.Y.: Prentice-Hall, Inc., 1960. 372 pp. $1.00 paper.

--In a real sense, the opening project of the modern futures movement. An appreciation of this work and its limits is essential to remind us how far Futures Studies has progressed in a decade. ABC/2-2-1/3-3-2-0/0

J. UTOPIAS AND SCIENCE FICTION

It is time to join science fiction to futures research and the essential reading in this category suggests good reasons for doing so.

162. ARMYTAGE, W.H.G. Yesterday's Tomorrows: A Historical Survey of Future Societies. Toronto: University of Toronto Press, 1968. 288 pp.

--Survey of Utopian literature in the context of modern forecasting efforts. AB/3-2-2/2-3-0-0/1

163. CLARESON, Thomas D. (ed.). SF: The Other Side of Realism: Essays on Modern Fantasy and Science Fiction. Bowling Green, Ohio: Bowling Green University Popular Press, 1971. 356 pp.

--A collection of articles by scholars of science fiction, writers and academics, including analyses of the literature as a whole and particular books and films. A good guide to the diversity of possible approaches and the lessons to be learned from examining SF seriously.
AB--not rated

164. LIVINGSTON, Dennis. "Science Fiction as an Educational Tool," in Alvin TOFFLER (ed.), Learning 21. N.Y.: Random House, forthcoming.

--Analyzes science fiction as a literature that explores problems of forecasting, postulates alternative societies, and describes technology-related public policy issues, and thus may be used to enhance both cognitive and affective modes of education. A--not rated

165. ASIMOV, Isaac. I, Robot and The Rest of the Robots. N.Y.: Doubleday.

--The master's collected robot stories, combining technological extrapolation and intriguing sociological speculation on the interaction of humanity and a mass mechanical labor base--note especially the novels "The Naked Sun" and "The Caves of Sttel."
ABC/1-3-3/2-2-0-1/1

166. ASIMOV, Isaac. Foundation. N.Y.: Avon, 1972 (1951). 200 pp. 95 cents. Foundation and Empire. N.Y.: Avon, 1971 (1953). 224 pp. 95 cents. Second Foundation. N.Y.: Avon, 1971 (1953). 191 pp. 95 cents.

--These three novels form the Foundation (surprise) trilogy, another future history, this one beginning in the far future when humanity has spread through the galaxy and a valiant

band of "psycho-historians" strives to maintain civilization by their manipulations, based on statistical probabilities of mass human behavior; a poll-taker's wet dream.
ABC/2-2-2/1-3-2-0/1

167. BRUNNER, John. Stand on Zanzibar. N.Y.: Ballantine Books, 1968. 650 pp. $1.65 paper.

--Truly judged a modern classic in science fiction. Offers a uniquely rich and realistic picture of a future society technologically obsessed and with population pressure so great that having a child is the ultimate luxury.

--Perhaps the most richly detailed SF portrait of the near international future, based on extrapolations of present trends: a familiar world, with more people, more problems, more social breakdown, as the great power struggle goes on.
ABC/2-1-3/4-0-0-1/2

168. CLARKE, C. Arthur. Childhood's End. N.Y.: Ballantine, 1971 (1953). 222 pp. 75 cents.

--Before the monolith, there was this tale, a powerful vision of the end of humanity as we know it and its forced evolution by the universal Overmind into--something.

--A stunning scenario of man's engineered, involuntary evolution, carried out through the very young, from Homo Sapiens to something as removed from present man as the Australopithecine. Excellent allegorical treatment of the "post-man" theme so common to science fiction, now wending its way back as a fresh manifestation of old European supremacy assumptions. Must reading in a time of potential limits to growth. ABC/2-1-2/3-3-0-0/2

169. ELLISON, Harlan (ed.). Dangerous Visions and Again, Dangerous Visions. N.Y.: Doubleday, 1967 and 1972.

--Landmark anthologies in SF by an editor who has himself authored many such stories--SF with the wraps off, catching up with Joyce & Co., plunging ahead into more imaginative possible futures than usually found heretofore; these are all original stories commissioned by Ellison from many of the top writers today. ABC/7-1-1/1-0-0-1/2

170. FORSTER, E. M. "The Machine Stops," in Dick ALLEN, Science Fiction: The Future. N.Y.: Harcourt, Brace, Jovanovich, 1971.

--One of the few SF works that is genuinely prophetic--futurology should do so well--written before World War I, it depicts our devastating dilemma: if all humanity is dependent on a machine, what if the machine stops . . .
ABC/5-0-1/3-1-0-1/2

171. HEINLEIN, Robert A. Stranger in a Strange Land. Berkeley Publishing Corp., 1961.

--Science fiction as a device to examine a major shift in values, sex as a religion; first half delightful reading.
ABC/1-1-1/1-3-1-3/2

172. HEINLEIN, Robert. The Past Through Tomorrow. N.Y.: Putnam, 1967.

--A collection of the author's "future history" stories and novels, arranged in chronological order according to plot; many solid social extrapolations of man-machine interactions.
ABC/6-2-0/2-0-0-1/2

173. HERBERT, Frank. Dune. N.Y.: Ace, 1965. 544 pp. $1.25.

--Already a classic for its intermixture of traditional sword and sorcery type SF stuff with fascinating detail, complete with historical and statistical appendices, on the ecological relationships of a desert people with their environment.
ABC/4-0-2/2-2-0-1/2

174. HUXLEY, Aldous. Brave New World. N.Y.: Harper & Row, 1932. 177 pp.

--The one and only, vision of a genetically and behaviorally stratified world that seems to come closer every day.

--Although industrial in orientation, a powerful and influential dystopian image of pervasive importance.
ABC/0-0-1/6-4-0-0/2

175. HUXLEY, Aldous. Brave New World Revisited. N.Y.: Harper & Row.

--Seen as an extension of Brave New World and equally essential.
ABC/0-0-2/4-4-0-1/2

176. HUXLEY, Aldous. Island. N.Y.: Harper, 1962; Bantam edition $1.25 paper.

--One of the very few purposefully Utopian novels written in recent decades; an intriguing portrait of a society based on Skinnerian techniques leavened by humanistic, sensual goals; how a counter-culture society might be like.
ABC/0-2-5/3-0-1-0/2

177. LE GUIN, Ursual. The Left Hand of Darkness. N.Y.: Ace, 1971 (1969). 286 pp. 95 cents.

--An earthman is ambassador to a far planet inhabited by unisexual humanoids; through his reactions, the reader is forced to confront and empathize with the wonderous strangeness of the ultimate in sexual equality, where "masculine" and "feminine" characteristics as we define them are inherent in the same person, and the burdens of child-bearing and raising

are equally shared--needless to say, a powerful metaphor for our own future.

ABC/7-2-1/1-0-0-0/2

178. McALLISTER, Bruce. Humanity Prime. N.Y.: Ace, 1971. 285 pp. 95 cents.

--A totally stunning first novel, as richly complex as Dune and Left Hand of Darkness, about an aquatic humanoid race, a civilization without tools, without writing, passing on race memories by telepathy, communicating with each other and marine friends by empathetic colors; probably how the dolphins operate right now.

ABC/7-1-0/2-1-0-1/1

179. MILLER, Walter M., Jr. A Canticle for Leibowitz. Philadelphia: Lippincott, 1959; Bantam edition, $1.25 paper.

--Another modern classic--a Catholic monastery after nuclear World War III strives to pass on to the future whatever scraps of pre-war knowledge that it can; like Earth Abides, a gritty tale of perseverance and hope in the face of catastrophe.

ABC/2-0-4/3-1-1-0/2

180. ORWELL, George. 1984. N.Y.: Harcourt, Brace, 1949.

--Not the first vision of its kind, and followed by many imitators, but still the book whose images and language have impressed themselves on popular consciousness as the prototypical negative alternative future; in the context of the present, this book can also be read as an anticipation of any urban slum.

--What other author in modern times has so completely appropriated a year to himself? 1984 is dystopia to all of us.

ABC/0-0-0/6-4-0-1/2

181. SHELLEY, Mary. Frankenstein. 1818; other editions, 1823, 1831, 1856, 1882, 1886, 1888.

--Yes, there he is, the granddaddy of us all, the story that has indelibly impressed upon us the metaphor for science outrunning society's control, and in our time, an ironic twist to the tale--we feel sorry for the monster, alienated and misunderstood product of the lab who means no harm--hello brother!

ABC/0-0-3/2-1-3-1/3

182. SILVERBERG, Robert. Son of Man. N.Y.: Ballantine, 1971.

--A passingly strange trip, in every sense; a man of our time is plopped into the very far future and wanders through a world in which humans seem to have god-like powers and society, or civilization, as we know it, is long gone.

ABC/5-0-1/1-2-0-1/3

183. SKINNER, B. F. Walden Two. N.Y.: The Macmillan Company, 1948. 320 pp. $1.95 paper. (WFS)

--The modern classic statement of one side of "the nature of man" arguments, and Scripture for more than a few people and groups who are trying to build Walden Twos.

--Not really fiction, but a philosophical essay on the application of principles of positive reinforcement to the building of a new human society; for many, a compelling vision, to be either pursued or avoided.
ABC/0-0-1/5-4-2-0/1

184. STAPLEDON, Olaf. Last and First Men and Star Maker (one book). N.Y.: Dover, 1968. 438 pp. $2.50.

--Another oldie, but goody, the future history to end all future histories, the first novel takes us to humanity's end of the line and the second, nothing less than the fate of the universe; stunning conceptualizations by this British philosopher, many now-standard SF themes can be traced to these stories. ABC/4-1-2/2-1-1-0/2

185. STEWART, George. Earth Abides. N.Y.: Fawcett, 1971 (1949).

--A quietly beautiful book of human endurance and hope, this is a pioneering novel of ecological SF; a new plague wipes out most of humankind, and the survivors grope together to start it all over as nature regains the planet; anyone for archery lessons? ABC/7-1-0/1-1-0-1/2

186. STURGEON, Theodore. Venus Plus X. N.Y.: Pyramid, 1969 (1960). 160 pp. 75 cents.

--Another very different alternative future portrait, again seen through the eyes of a man (why are they always men?) from our own time; a society which looks like Utopia, but beneath the surface--ha!--it really is a Utopia, similar to Left Hand of Darkness in eliminating all "masculine" and "feminine" roles. ABC/7-2-0/1-0-0-1/2

187. THEOBALD, Robert and J. M. SCOTT. TEG's 1994: An Anticipation of the Near Future. N.Y.: Swallow Press, 1972. 211 pp. $6.00; $2.50 paper. (WFS)

--A fictional essay expressing the authors' vision of a world based on maximum communications and information flows, minimum centralized government, and automated abundance; interesting for its scenario of how we get from here to there.
ABC/1-1-2/4-4-1-0/0

188. VONNEGUT, Kurt. Player Piano. N.Y.: Avon, 1970. 318 pp. 95 cents.

--The author's "straightest" SF novel, a funny/sad morality play of a weird mirror image to Theobald's world--abundance has arrived, but nobody knows what to do with it, so the

technocrats are on top and everyone else does make work.
ABC/4-1-2/3-0-1-0/2

189. WELLS, H. G. Three Prophetic Novels of H. G. Wells. N.Y.: Dover, 1960.

--Contains "The Time Machine"--the first such audacious visualization of humanity's ultimate evolution--and "The Sleeper Awakes" and "A Tale of the Days to Come," which again impress us with striking metaphors of the city of the future that has come to pass. ABC/0-2-3/3-1-1-1/2

K. METHODOLOGY

Most consideration of the future is still done without forethought as to how it might best be done. General considerations in forecasting are listed first (nos. 190-206), followed by documents on technological forecasting (nos. 207-216), technology assessment, social indicators, systems thinking, and policy analysis.

190. BAIER, Kurt and Nicholas RESCHER (eds.). Values and the Future: The Impact of Technological Change on American Values. N.Y.: The Free Press, 1971. 512 pp. $4.95 paper. (WFS)

--Originally published in mid-1960s. Value forecasting is the essential heart of societal forecasting. It's still infeasible, but this volume is the best contemporary approach I know of. AB/0-3-0/5-5-0-0/0

191. BOULDING, Elise. "Futurology and the Imaging Capacity of the West." Paper from Cultural Futurology Symposium, University of Hawaii, 1970 (see item 53). Also see shorter version in The Teilhard Review, VII:1, Feb. 1972, pp. 12-16.

--Statement of the need for clear guiding images of the future, plus a review of orientations toward the future among groups currently at work. A/4-0-1/4-4-0-0/0

192. BELL, Daniel. "Twelve Modes of Prediction," Daedalus, Summer 1964.

--Extremely important to the futurist as a (somewhat haphazard) catalog of modes of prediction in the social sciences. ABC--not rated

193. DE JOUVENEL, Bertrand. The Art of Conjecture. Translated from the French by Nikita Lary. N.Y.: Basic Books, 1967. 307 pp. (First published by Editions du Rocher in 1964.) (WFS)

--Despite its early date, remains the finest book-length discussion of philosophical issues involved in futures research.

--An important stimulus to further work in the field.

--A classic in futures studies representative for the non-technocratic approach.

--Describes contemporary mind-sets which influence consideration of the future, the nature of the future, the ways in which individuals forecast probable futures, past predictions which time proved false, means of forecasting which are relatively safe, the nature of social forecasting, quantitative forecasting,

problems of social forecasting, and the desirability of systematic societal forecasting.
AB/0-0-1/10-2-0-0/0

194. DE JOUVENEL, Bertrand. "Political Science and Prevision," American Political Science Review, Vol. 59, March 1965, pp. 29-38.

--In effect, this article can be read as an action-oriented summary of The Art of Conjecture. The plea made to political scientists to look ahead applies with equal force to all of the other "policy scientists."
A/2-3-1/2-4-1-0/0

195. DUNCAN, Otis Dudley. "Social Forecasting--The State of the Art," The Public Interest, No. 17, Fall 1969, pp. 88-118.

--A first-rate survey of the level of quality in social forecasting. With only one or two exceptions, nothing has changed since Duncan wrote.
A/4-2-0/5-2-0-0/0

196. HELMER, Olaf and Nicholas RESCHER. On the Epistemology of the Inexact Sciences. Report R-353. Santa Monica, Calif.: The Rand Corporation, Feb. 1960. Also published in Management Science, Vol. 6, No. 1, Oct. 1959, pp. 25-52.

--A fundamental, though still arguable, discussion of the derivation and place of judgmental data in systems studies. Hence, an excellent jumping-off point for considering the purposes and potential value of futures research.

--Philosophical bases of explanation and prediction compared and juxtaposed. Important in linking scientific and futurist thinking in the policy analysis process.
A/2-4-0/5-1-1-0/0

197. HELMER, Olaf. Social Technology. N.Y.: Basic Books, 1966. 108 pp. $5.95. (WFS)

--Brings together several of Helmer's earlier papers on the task of developing improved means, in part through forecasting, of enhancing the effectiveness of social interaction. Includes as an appendix the now classic Delphi study by Gordon and Helmer published originally by Rand in 1964.
AB/0-1-1/8-2-0-1/0

198. HETMAN, Francois. The Language of Forecasting. Paris: SEDEIS, 1970 (?). 540 pp. $9.90.

--A dictionary of forecasting with both French and English sections. AB/2-2-1/1-5-2-0/0

199. IKLE, Fred. "Can Social Predictions be Evaluated?" Daedalus, Summer 1967 (see no. 47).

--Forecasting and its utility, necessity.
AB/4-1-1/2-5-0-0/0

200. KUHN, Thomas S. The Structure of Scientific Revolutions. Chicago: University of Chicago Press, 1962. 172 pp. Second Edition, Enlarged, 1970. 210 pp. $1.50 paper.

--Drawing his data from history, philosophy, and psychology, Kuhn argues that 'normal science' presupposes a conceptual and instrumental framework or paradigm accepted by an entire scientific community; that the resulting mode of scientific practice inevitably evokes "crises" which cannot be resolved within this framework; and that science returns to normal only when the community accepts a new conceptual structure which can again govern its search for novel facts and for more refined theories.

--This is a great book, one of the best, but this isn't futures literature. AB/2-1-1/5-2-1-0/1

201. LASSWELL, Harold. "The Political Science of Science," American Political Science Review, Dec. 1956.

--Early insights and promotion of genuine futurist perspective. A/5-3-1/2-2-0-0/0

202. MASINI, Eleonora. Social and Human Forecasting. Rome: IRADES, Edizioni Previsionali, 1972 (in press).

--An analysis of social and human forecasting's terminology and methodology. A/7-3-0/1-1-0-0/1

203. POLAK, Fred. The Image of the Future. Two Vols. N.Y.: Oceana, 1961.

--A vital European, heavily historical and philosophical statement of what the "future" has meant to us at earlier times. A--not rated

204. POLAK, Fred L. Prognostics--A Science in the Making Surveys and Creates the Future. Amsterdam/London/New York: Elsevier Publishing Company, 1971. 425 pp.

--Discussion of dogmatic attitude of mind towards the future and prognostics as a modern and flexible way to face the future. A/2-3-2/2-2-2-0/0

205. POWERS, Darold and Hilda POWERS. The Future Machine. Introduction by Jay Mendell. World Future Society Book Series. N.Y.: Gordon & Breach, 1972 (in press).

--Designed to help people think more creatively about the future. AB/7-2-1/2-1-0-0/0

206. WASKOW, Arthur I. "Looking Forward: 1999," in Robert JUNGK and Johan GALTUNG (eds.), Mankind 2000. London: Allyn and Unwin, 1969 (see no. 51).

--Raises the problem of participation in choices about the future in a clear and forceful manner. Problem is so

neglected in the literature in general that Waskow tries to right the balance.
AB/1-2-0/4-2-4-0/0

207. AYRES, Robert U. Technological Forecasting and Long-Range Planning. N.Y.: McGraw-Hill, 1969. 237 pp. $12.50. (WFS)

--One of the best introductions to technological forecasting.
AB/0-0-2/7-2-1-0/1

208. BRIGHT, James R. (ed.). Technological Forecasting for Industry and Government. Englewood Cliffs, N.J.: Prentice-Hall, 1968.

--The only book on the subject that adequately explains how t-f can be used in business.
A/1-0-5/2-4-1-0/0

209. CETRON, Marvin J. and Christine A. RALPH. Industrial Applications of Technological Forecasting: Its Utilization in R&D Management. N.Y.: Wiley-Interscience, 1971.

--The first volume of any significance to combine a discussion of forecasting with actual case studies from industry experiences. Probably the most important book in the field published in 1971; supercedes all other earlier attempts.
A/3-4-2/1-2-1-0/0

210. DARRACOTT, H. T. et. al. Report on Technological Forecasting. Washington: Joint AMC/NMC/AFSC Commanders, Department of Defense, June 1967. 161 items.

--Might be called "the shorter Jantsch." An excellent source on methodology, and it includes an excellent bibliography. The importance of this document may be indicated by the extent to which it has been shamelessly plagiarized by others (e.g., Lanford in his 1972 AMA publication, Technological Forecasting Methodologies: A Synthesis).
A/7-2-1/1-2-0-0/0

211. JANTSCH, Erich. Technological Forecasting in Perspective. Paris: Organisation for Economic Co-operation and Development, 1967. 401 pp. $8.70.

--Still one of the best extended discussions of the key methods of futures research. Additionally, this volume provides the original source for many of the central distinctions in futures research (e.g., between "exploratory" and "normative" forecasting). Assumes a fairly technical background, as well as philosophical inclination, on the part of serious readers. Includes one of the first important bibliographies on the subject of futures research.

--A ponderous and often difficult work, yet essential reading because it represented the first substantial world-wide survey of modern futures research. The scope is broader than the title suggests. AB/1-1-0/9-1-1-0/0

212. JANTSCH, Erich. Technological Planning and Social Futures. Associated Business Programmes, Ltd., 1972.

--A collection of essays representing the technocratic approach. A/5-3-2/1-2-0-0/0

213. LENK, H. Erklärung-Prognose-Planung. Rombach, 1972.

--Discusses future-oriented philosophy. Also see H. Lenk, Philosophie im Technologischen Zeitalter (W. Kohlhammer, 1971). A/12-0-0/1-0-0-0/0

214. LENZ, R. C., Jr. Technological Forecasting. Second edition, Report ASD-TDR-62-414. Wright-Patterson Air Force Base, Ohio: Aeronautical Systems Division, Air Force Systems Command, June 1962.

--A basic source of information on methods of technological forecasting, particularly trend extrapolation. A/5-1-3/3-0-1-0/0

215. MARTINO, Joseph P. (ed.). An Introduction to Technological Forecasting. World Future Society Book Series. N.Y.: Gordon & Breach, June 1972. $9.50; $6.50 paper. (WFS)

--A selection of the best writings in the field by the Technological Forecasting Editor of The Futurist. Articles by James E. Hacke, Jr., Joseph P. Martino, Norman C. Dalkey, Lauren B. Doyle, Robert W. Prehoda, Marvin J. Cetron, William L. Swager, Olaf Helmer, Hasan Osbekhan, Joseph M. Goldsen, and Arthur I. Waskow. AB/2-4-2/2-2-1-0/0

216. QUINN, James Brian. "Technological Forecasting," The Harvard Business Review, March-April 1967. p. 89ff.

--The best short explanation of technological forecasting. Still current after five years, though this doesn't say much for progress in t-f. A/5-3-0/1-2-2-0/0

217. (Technology Assessment) The Futurist, Dec. 1971 and Feb. 1972.

--Contain the best explanations of technology assessment that are to be found. Especially see the articles by Joseph Coates (December) and Martin V. Jones (February). ABC/0-0-2/6-4-0-0/1

218. Political Intelligence for America's Future. THE ANNALS of the American Academy of Political and Social Science, March 1970 (edited by Bertram M. Gross and Michael Springer).

--Articles on social indicators; Congress's use of information; intelligence distortion in industry; and so forth, plus a bibliography on social indicators.

--(Ed. note) Also see Social Goals and Indicators for American Society, THE ANNALS, 371: May 1967, and 373: Sept. 1967; both volumes consolidated in Bertram M. Gross (ed.), Social Intelligence for America's Future: Explorations in Societal Problems (Allyn and Bacon, 1969).
A/1-1-3/3/2-3-0/0

219. BAUER, Raymond (ed.). Social Indicators. Cambridge: MIT Press, 1966. 357 pp. $10.00.

--The "granddaddy" of the field of social indicators. Still helpful because of its articles showing different perspectives. AB--not rated

220. BEER, Stafford. "The Liberty Machine," Proceedings of the International Conference on Corporate Planning, Section 17. Montreal, Quebec, December 10, 1971. Also in Futures, 3:4, Dec. 1971, pp. 338-348.

--A beautiful discussion of the practical necessity of thinking about the future in terms of systems, and of the possible human consequences (e.g., loss of freedom) if we do so. In its own way, at least as important as John Platt's "What We Must Do." AB/8-0-0/2-2-1-0/0

221. CHURCHMAN, C. West. The Systems Approach. N.Y.: Dell Publishing Co., 1968. 243 pp. $2.25 Delta paperback.

--A profound though easily read presentation of systems thinking, which is fundamental in the area of futures studies.
ABC/2-0-4/2-4-0-1/0

222. QUADE, E. S. and W. I. BOUCHER (eds.). Systems Analysis and Policy Planning: Applications in Defense. N.Y.: American Elsevier, 1968.

--The first, and perhaps the only, discussion of the use in system analysis of the techniques that have now come to be included under the heading of futures research (see especially Chapter 18). A/6-2-1/2-2-0-0/0

223. BOGUSLAW, Robert. The New Utopians: A Study of System Design and Social Change. N.Y.: Prentice-Hall, 1965. 213 pp. $2.45 paper.

--A well-written and stimulating development of the relationships between system design and social philosophy. Stresses formalist, heuristic, operating unit, and ad hoc approaches to system design. Critical of overdeveloped reliance on systems analysts.

--(Ed. note) Somewhat related to Boguslaw's sociological survey of the field is Paul Dickson, Think Tanks (N.Y.: Atheneum, 1971. 369 pp. $10.00). Although a journalistic treatment, it is quite fair and, of course, considerably more recent.
AB/2-1-3/3-3-1-0/0

224. DROR, Yehezkel. Public Policy-Making Reexamined. San Francisco: Chandler Publishing Co., 1968. 370 pp.

--An unparalleled survey of the policy analysis area with an extremely useful annotated bibliography.
A/3-2-1/3-2-1-0/1

225. DROR, Yehezkel. Design for Policy Sciences. N.Y., London, Amsterdam: Elsevier, 1971. 149 pp.

--Examination of specific weakness of current policy-making and systematic delimitation of the main dimensions of policy sciences with a survey of its moral validity and possible dangers. AB/3-1-2/2-4-0-0/1

226. DROR, Yehezkel. Ventures in Policy Sciences: Concepts and Applications. N.Y.: American Elsevier, 1971. 321 pp.

--Especially useful for linking futures studies and general systems theory to desired improvements in public policy-making. A/3-2-1/5-1-0-0/1

227. FAIRWEATHER, George. Methods for Experimental Social Innovation. N.Y.: Wiley, 1967.

--Absolutely vital for developing social futures on a scientific basis, in contrast--though by no means in opposition--to intuitive speculations and dreams.
A--not rated

228. STULMAN, Julius. "The Methodology of Pattern," Fields Within Fields...Within Fields, 5:1, 1972, pp. 7-41 (see item 25).

--One might refer to the method of thinking promulgated here as Buckminster Fuller-style, cosmic, holistic, organismic, or systemic, but it certainly stands in contrast with the more cautious and scientific (or scientistic?) methods for probing and shaping the future, and is therefore worthy of attention in the event that the conventional wisdom of futuristics goes the way of most conventional wisdoms. Many of these ideas can be found in Julius Stulman, Evolving Mankind's Future. Philadelphia: Lippincott, 1967. 95 pp. $1.95. (WFS) A--not rated (Ed. suggestion)

L. BIBLIOGRAPHIES AND DIRECTORIES

If the reader finds these listings inadequate to his or her needs, further help might be offered by the subsequent listings. We are still far away from a globally comprehensive, public access futures information system; ten years from now these bibliographies and directories will surely be seen as early gropings to define the field.

229. BAUSUM, Howard T. Science for Society: A Bibliography. Third Edition. Washington: American Association for the Advancement of Science, Commission on Science Education (1515 Massachusetts Ave., N.W.), June 1972. 92 pp. $1.00 (75 cents in lots of 10 or more).

--About 4200 items, most of them briefly annotated, with subject index but no author index. References divided evenly between books and periodical literature; many can be considered as futures or futures-related. Previous editions were prepared by John A. Moore. In that only 25-30% of the 3000 items in the 1971 edition have been retained here, the ambitious scholar might wish to obtain the older editions.
AB--not rated (Ed. suggestion)

230. DE HOGHTON, Charles, William PAGE, and Guy STREATFEILD. ...And Now the Future: A PEP Survey of Future Studies. Vol. XXXVII Broadsheet 529. London: PEP, 12 Upper Belgrave Street, London, SW1, Aug. 1971. 171 pp. £2.00.

--An introduction to the field and its methodologies, with a bibliography of 1256 items, some of them annotated.
AB/4-3-2/2-2-0-0/0

231. IRADES (Instituto Ricerche Applicate Documentazioni e Studi). Social Forecasting/Documentation 1971/Ideas, Men, Activities. Rome: IRADES (Via Paisiello 6, 00198 Roma), 1971. 834 pp. $8.00 U.S.

--Virtually unknown in the U.S., this global directory for futurists lists organizations, individuals, periodicals, futures courses, and 135 meetings in the 1965-1972 period--all indexed. An appendix bibliography, separately indexed, contains about 3000 items (roughly 40% books and 60% articles and papers) with the division by language approximately 45% English, 40% Italian, 10% French, and 5% other. Although weak for North America, this valuable compendium is nevertheless the best available portrait of futurist activity on a global scale. A 1972 edition is in preparation.
A--not rated (Ed. suggestion)

232. MARIEN, Michael. Alternative Futures for Learning: An Annotated Bibliography of Trends, Forecasts, and Proposals. Syracuse, N.Y.: Educational Policy Research Center, May 1971. 223 pp. $5.00. (WFS)

--Best around for general future studies and educational materials. A facilitating instrument, and therefore essential reading.

--(Ed. note) This bibliography lists 936 items, mostly annotated, about 80% books or book-length documents, with indexes by author, organization, and selected subject. A new selected biblioguide, Essential Reading for the Future of Education--1972, will probably be available from EPRC in October 1972. Also see Michael Marien, Beyond the Carnegie Commission (EPRC, August 1972) for an annotated bibliography of 158 items pertaining to the cutting edge of post-secondary education.
AB/2-1-1/8-0-0-0/1 (Probably some bias here!)

233. STEVENSON, Hugh A. and William B. HAMILTON (eds.). Canadian Education and the Future: A Select Annotated Bibliography, 1967-1971. London, Ontario, Canada: University of Western Ontario, Dept. of Information Services, Jan. 1972. 59 pp. $2.00.

--A well-annotated listing of 260 Canadian documents and audiotapes concerning the future in general and education in particular--indicating that futures-thinking in Canada is quite parallel to developments in the U.S. and Europe.
AB/3-1-2/3-2-0-0/2

234. MARTIN, Marie. Films on the Future: A Selective Listing. Washington: World Future Society, 1971. 33 pp. Mimeo. (WFS)

--An annotated guide to more than 100 films and where they can be obtained. ABC--not rated (Ed. suggestion)

235. BRAND, Stuart. The Last Whole Earth Catalog. N.Y.: Random House, 1971. 448 pp. $5.00.

--The catalog of tools that isn't about the future, it is the future.

--With all due respect, if this is "futuristic," then so is a Sears and Roebuck Catalog or Zap Comix.

--(Ed. note) In any event, there are more than 100 well-annotated futures books listed here.
ABC/2-1-2/1-4-1-0/2

236. ROSZAK, Theodore. "A Survival Kit," Sources: An Anthology of Contemporary Materials Useful for Preserving Personal Sanity while Braving the Great Technological Wilderness. N.Y.: Harper & Row, 1972, pp. 531-572. $2.95 paper.

--A directory showing the extensiveness with which the counter-culture appears to be taking root. Entries come under the following headings: 1. The Eupsychian Network, 2. Communes: Guides and Handbooks, 3. Communes: Resource Groups and Publication, 4. Do-It-Yourself and Organic Homesteading, 5. Counter Institutions, including Universities, 6. The Law, 7. Drugs, 8. Race and Poverty: Community Development, 9. Ecology, 10. Women's Liberation, 11. Schools, 12. Jobs, 13. The Cosmic Circuit, 14. Draft Resistance, 15. Sundry Publications. ABC/5-3-3/1-0-0-1/0

Part II (Supplement) Biassed Reading Towards Mankind's Future

(Ed. Note) This supplement is presented verbatim at the request of the authors. I offer no comment on it, except that it generally does not reflect my biases. Other lists with other biases could have been invited, but this single list is adequate to underscore the important question raised by the authors as to whether it is best to introduce one to the future through a coherent list, or through a "pluralistic offer" such as the Hot List Delphi. I leave this to the reader to answer.

* * *

BIASSED READING TOWARDS MANKIND'S FUTURE

Contents

I. Problemising present futures

II. The future--fixing the present

III. Futures conditions--determining one's own prospects?

IV. Futures Research--economic-ideological functions

V. State of the future--occupied future?

Annex

On social prognostics

Explanation: * in front of bibliographical data signifies: to be recommended expressly

Berlin, June 1972

N. M. Ralf/B. Ziegler
Dokumentation für Graue Literatur
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Kurfürstendamm 195/6, VI
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BIASSED READING TOWARDS MANKIND'S FUTURE

I. Problemising present futures

When being asked to participate in the 'Hot List Delphi on Essential Reading in Futures Research' we declined with stating that we are not considering this method appropriate to meet our goals.

On grounds of our hitherto existing experiences with Delphi inquiries we are particularly criticising:

- experts arrange the future for experts, in this case the experts' reading material which mostly will be known anyhow (propaganda effect, for whom!),
- there is hardly any relation to the reader's everyday living situation, and thus such a list will only be of limited value for him,
- this method does not pay any heed to the reader's learning process,
- the results of a Delphi inquiry will represent a pluralistic offer which will be more confusing than clarifying.

Considering all these main deficiencies we think our approach more honest and useful for the potential reader: our list is not to be any international mixture of books, etc., on the future, but it is intended to be an introduction to the reader as to the basic problems around such a field like Futures Research (in a society given), and at the same time it is intended to make him aware of futures problems so that he becomes able to realise his own stand. We are aiming at minimising the passive reading time but maximising one's own thinking.

To get involved with the future does not simply mean for us to put together knowledge from books, and to recommend them as uniquely future-essential but we consider this involvement the beginning of a process which ought to lead to contemplation, engagement, action and change. Therefore we deliberately offer a biassed selection: our selection.

There have to be mentioned two shortcomings of our proposal:

(1) As to our approach we know very well that we have to regard the national realities, the mentality of the potential reader (more or less persons with academic background are addressed

by our list). We are, of course, not quite sure whether our selection will meet the Anglo-Saxon, especially the North American expectations.

For this reason, too, we are asking for criticism, stimulation but also for communication and cooperation: our approach must not be considered a silent offer among others to be swallowed because of respect to authorities but it should become a discussion platform to continue penetrating into futures background more precisely.

(2) We should have liked it very much to comment our selection more detailedly and closely, with more exact hints for reading--this unfortunately was impossible because of lack of time and personal circumstances.

By the way, when discussing and preparing this document, we recognized that we, indeed, had to enter into writing a new book on influencing the future radically from our point of view. The texts and documents chosen are to be both an introduction and a start to get down to one's own future--on one's own, in groups or together with others.

II. The future--fixing the present

In concentrating directly on the future itself we primarily strive for arousing a feeling for the future and futures ideas both as to the past and the present. This way it can be shown that in history it had been tried again and again to fix the respective state of development forever.

The most known future models are the Utopia. To begin with we choose:

* Plato: THE STATE (Penguin Classics)

This Utopian model is one of the oldest: a static-hierarchical, disciplined social system is described. From those many early Utopias we only refer to the first social Utopia.

* Th. More: UTOPIA (Penguin Classics, L 165), Baltimore 1965

Th. More is critically getting down to the state of affairs in the 16th century, and he is turning against social injustice and calling a social liberation.

Without going into more particulars with regard to those many Utopian models, we are now directly moving to our days, to the so-called negative Utopia which caution against the future, mankind is apparently facing--against the stereotyping, man's emptying, the machinisation of all life.

* E. Zamiatin: WE (Dutton), N.Y.
or
G. Orwell: 1984 (Harcourt, Brace), N.Y. 1949

We are leaving out of consideration the bulk of science-fiction literature as it does not get beyond the Utopia, according to our opinion, roughly summarised, it only is engineering present social conditions towards the future. Therefore we now turn to the first comprehensive investigation in Utopian thinking, the Utopian pictures of the future and its pioneering function in view of the recognition of the economic connections and developments as historical driving forces.

* F. Engels: SOCIALISM, UTOPIAN AND SCIENTIFIC, London 1892

In order to complete the given picture on future models, and to become aware of the future which one himself is living in, we are contrasting with each other two statements on the future.

THE AMERICAN CONSTITUTION (P. Goodman, ed. [Wiley], N.Y.)
and
THE COMMUNIST MANIFESTO (K. Marx/F. Engels [Monthly Review], N.Y.)

III. Futures conditions--determining one's own prospects?

To catch closer hold of the futures conditions, especially those in the USA, the constitutional pre-requisites have to be confronted with the socio-economic realities.

* P. A. Baran/P. M. Sweezy: MONOPOLY CAPITAL (Monthly Review Press), N.Y./London 1966
P. M. Sweezy: THE PRESENT AS HISTORY, N.Y. 1953

In these books the social, political, economic, and technical trends in the USA become recognisable, and are commented critically. The next important development problem is already partially covered by them: the capitalistic planning attempts, the necessity of which becomes more and more obvious.

A. Shonfield: MODERN CAPITALISTM (Oxford Univ. Press), 1965
also
R. L. Heilbroner: THE LIMITS OF AMERICAN CAPITALISM (Grove Press), N.Y. 1961

On these foundations, the development of the capitalistic system and the steadily growing planning discussion, the urgency for systematic research work towards the future becomes explicable: as a basic tool for planning and for the determination of the necessary steps to be taken.

* O. Flechtheim: HISTORY AND FUTUROLOGY (Hain), Meisenheim 1965

Another dimension is embodied by pessimism and criticism on the future cropping up--to be registered by the crises on top of each other, the wars, the environmental catastrophes. Man's future and his prospects under these predominant socio-economic conditions are tackled by

Hampton-Turner: RADICAL MAN (Doubleday), N.Y. 1971
H. Marcuse: THE ONE-DIMENSIONAL MAN (Beacon Press), Boston 1964
* A. Waskow: LOOKING FORWARD 1999, in: R. Jungk/J. Galtung (ed.): Mankind 2000 (Allen & Unwin), London/Oslo 1969

The scientist's position, his tasks and his range of free movement under the above-stressed capitalistic power structures and conditions are being described and made more clear by papers which were delivered at the conference of the 'World Federation of Scientific Workers'[1] in the Netherlands in 1971.

* R. Dittmann: SCIENTISTS: SAVANTS OR SERVANTS?[2]
* M. K. Hughes: SCIENTISTS OF THE WORLD UNITE[3]

IV. Futures Research--economic-ideological functions

After having unveiled the socio-economic forces of the present future activities we now have to focus the parallel emergence of the science of the future: mostly called Futures Research or Futurology. As an introduction and a discussion background look at

O. Flechtheim: FUTUROLOGIE (Verlag Wissenschaft und Politik) Köln 1970
* J. Meynaud: LES SPECULATION SUR L'AVENIR, in: Etudes de Science Politique, No. 12, Lausanne/Montreal 1965

All around this emerging science numerous methods and research procedures, borrowed from a variety of scientific disciplines, have been piled up. We do not intend to go into methodological details in this introduction but we want to recommend some critical essays in this regard which both try to systematise the methods used, and to value them.

* R. Jungk: BREAK THROUGH TO TOMORROW, in: The Unesco Courier, What Future for Futurology, Paris, April 1971
Look especially at the above-mentioned essay by J. Meynaud, too.

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[1] WFSW, 40, Goodge Street, London W1P 1FH, U.K.

[2] R. Dittmann (USA), for address and paper write to WFSW.

[3] M. K. Hughes, 63, Prebend's Field, Gilesgate Moor, Durham City, U.K.

As we have emphasised, Futures Research was an answer to the economic necessities of a particular development stage of the capitalistic system. This development correspondingly also coined the scientists in Futures Research, their scientific ethos and their engagement to social radical change. There are to be found some critical remarks on the scientific character of Futures Research and its representatives.

* B. van Steenbergen: CRITICAL AND ESTABLISHMENT FUTUROLOGY (Paper delivered at the Int. Future Research Conference, Kyoto, Japan, 1970)
* C. Koch: KRITIK DER FUTUROLOGIE, in Kursbuch 14 (Suhrkamp), Frankfurt 1968
J. Matzner: ZUM SELBSTVERSTÄNDNIS KRITISCHER FUTUROLOGIE, in: J. Meynaud/H. Stück/J. Matzner/R. Jungk: Spekulationen über die Zukunft (Rogner & Bernhard), München 1971

V. State of the future--occupied future?

Futures conditions, the scientific disputes on its capitalistic foundations, the function of Futures Research in its socio-economic surroundings have been hitherto emphasised. Now, it becomes urgent to determine the basic requirements for engaged action to avert that threatening future governed by the military-industrial complex.

To start with a phrase by R. Jungk: 'The future is occupied.' First investigating approaches in this direction can be found with

* J. K. Galbraith: THE NEW INDUSTRIAL STATE, Boston 1967
R. Jungk: FOREKNOWLEDGE IS POWER, in: Sonnenberg, Journal for International Understanding, No. 49, Wolfenbüttel, July 1969

The following two works are still more slashingly concentrating on the occupation of the future: Mr. Kolko is more informative, while Sweezy/Magdoff are more theoretically founded.

* G. Kolko: WEALTH AND POWER IN AMERICA--AN ANALYSIS OF SOCIAL CLASS AND INCOME DISTRIBUTION (Praeger), N.Y. 1962
P. M. Sweezy/H. Magdoff: THE MERGER MOVEMENT--A STUDY IN POWER (New England Free Press), Boston 1962

Both analyses already disclose the freedom of movement of the so-called self-determining, free man, and his possibilities to realise his own social future under capitalistic conditions.

There can be observed attempts to break away from this industry-controlled future.

H. Marcuse: RADICAL PERSPECTIVES, in: Our Generation, 1969

* Th. Roszak: THE MAKING OF THE COUNTER-CULTURE (Anchor Books), Garden City, N.Y. 1969
(see also: Hampton-Turner: RADICAL MAN)

A democratic and radical Futures Research must be established on the socio-economical, political analysis of the governing conditions and forces, and it must press for practical realisation of that humanly necessary future. But how does this capitalistic future look like? This capitalistic future will be summarized on the basis of the existing economic and social processes, of the consequences to be drawn.

* E. Mandel: WHERE IS AMERICA GOING, New Left Review, No. 54, March-April 1969
P. M. Sweezy: CAN THE RULING CLASS SHAPE HISTORY? (New England Free Press), Boston
G. Hunnius: STRATEGIES FOR CHANGE: PROBLEMS AND POSSIBILITIES (Paper delivered at the Conference on Worker's Control by 'Praxis': Research Institute for Social Change, Toronto 1971)
R. Garaudy: L'ALTERNATIVE (Editions Robert Laffont), Paris 1972

On social prognostics (annex)

We want to turn the attention to a controversy which is taking place among the socialist countries and the western countries on social forecasting, social prognostics: its functions under socialist and capitalistic conditions.

There can be made a distinction between criticism and prospects of bourgeois Futures Research and the description of social prognostics in Socialism--we give a few bibliographical data (German language).

1) Criticism and prospects of Futures Research

A. Bönisch: FUTUROLOGIE--EINE KRITISCHE ANALYSE BÜRGERLICHER ZUKUNFTSFORSCHUNG (Marxistische Blätter), Frankfurt 1971

J. Kuczynski: PROPHETEN DER WIRTSCHAFT--Studien zum Problem der Wirtschaftsprognose im Kapitalismus (Dietz), Berlin 1970

D. Klein: ZUR WISSENSCHAFTLICHEN GESELLSCHAFTSPROGNOSE SPÄT-KAPITALISTISCHER ENTWICKLUNGEN--Kritisches zur bürgerlichen Futurologie, in: Rote Presse-Korrespondenc, No. 7 extra, München 50, Scharnhorststr. 14

2) Social prognostics in Socialism

A. Bauer, u.a.: PHILOSOPHIE UND PROGNOSTIK--Weltanschauung und methodische Probleme der Gesellschaftsprognostik (Dietz), Berlin 1968

H. Edeling: PROGNOSTIK UND SOZIALISMUS--Zur marxistisch-leninistischen Prognostik moderner Produktionskräfte in der DDR (Dietz) Berlin 1968

B. Bittighöfer/H. Kempf: ERKUNDUNG DER ZUKUNFT (Dietz), Berlin 1969

G. Heyden (Hrsg.): GESELLSCHAFTSPROGNOSTIK--Probleme einer neuen Wissenschaft (Verlag der Wissenschaften), Berlin 1968

H. Lauterbach/G. Söder: PLANUNG--WISSENSCHAFT ODER SPEKULATION (Verlag der Wissenschaften), Berlin 1965

D. Klein: ZUR PROGNOSE DER WIDERSPRÜCHE IM IMPERIALISMUS, in: Marxistische Blätter, No. 2, Frankfurt 1970

O. Neumann: ZUKUNFT IN FUTUROLOGISCHER UND MARXISTISCHER SICHT, in: Marxistische Blätter, No. 2, Frankfurt 1970

Part III

Original Instructions to Panelists
With Footnoted Commentary

To: Date: March 20, 1972

From: Michael Marien

Subject: Participation in "Hot List Delphi"

This is an invitation to participate in a survey of "Essential Reading for the Future of Mankind" or, as informally described, a "Hot List Delphi". If you meet the requirements for panel membership (some grasp of at least 500 futures or futures-related books, articles, and reports) and if you are willing to participate, please return the enclosed questionnaire[1] immediately so that we can get underway. The following comments elaborate on purposes, panel selection, procedures, and products.

I. PURPOSES

As all of us surely realize, there are thousands--perhaps tens of thousands--of books, articles, and reports in the English language alone concerned with changes that are taking place, possible futures, and desirable futures or reforms. But there is no information system to pull together this transdisciplinary, transideological, and transnational assortment into a definable "body", and, despite some heroic efforts at documentation, no single individual or group has yet to approach a grasp of the whole. Even if such a system existed, there would be a problem for most futurists (not to mention the growing number of citizens and students who wish to study the future) as to which documents are worthwhile, first-rate, essential and which documents are second-rate or perhaps even worthless. As alternative futures and policy studies continue to proliferate, and as the United States approaches its Bicentennial in 1976 (which will surely result in an outpouring of "Third Century" visions), the problem of choice will become increasingly acute.

The "Hot List Delphi" is an attempt to employ a panel of judges to select and rate the outstanding futures literature--the "hot items" that could prove critical to our understanding of problems and possibilities. Films and restaurants are regularly rated by critics and guidebooks abound; books and recordings; unfortunately, receive little more than superficial

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[1] Questionnaire and list of initial invitees are not reproduced here.

"top ten" market ratings.[2] Despite the hazards of differing tastes and ideologies, our future is too important a concern to deny at least an attempt to identify important statements that deserve widespread attention.

These purposes, and others, are outlined as follows:

1. To cope with information overload.

2. To define the field of future study (futures research, futuristics, futurology) by arraying exemplary contributions.[3]

3. To determine the consensus, if any, among futurists, policy scientists, social reformers, as to essential literature in "the field", i.e. to determine if there is commonly shared information and valuation of this information.

4. To suggest a tentative basic library or "coping curriculum" for citizens and students, possibly at three levels of comprehension: Professional/Graduate, Informed Citizen/Undergraduate, and Average Citizen/High School.

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[2] A comment is appropriate here as concerns the National Book Awards. It is obviously valuable to have a reward system for the most distinguished books by American authors that are published during any one year. In contrast, the Hot List Delphi attempts to recognize documents for the merit of their ideas and their importance for the problems of humanity; it does not discriminate by nationality of author, form of document, or date of publication. The difference in outcome is quite marked: of the 102 National Book Award nominations selected by 36 judges (New York Times, March 27, 1972, p.42), only five might be considered relevant to the listing supplied here. Four of these five books were nominated and rated by the panelists: Brand (No. 235), Commoner (No. 80), Skinner (No. 39), and Thompson (No. 42). The number of panelists judging them as essential were 1, 3, 3, and 2 respectively. Stuart Brand's Last Whole Earth Catalog was the only one of these books to eventually win one of the ten prizes, but with considerable controversy as to whether or not it was a book! A new system, perhaps sponsored by the United Nations, is surely needed.

[3] The need to publicly hold forth a model of quality cannot be underestimated. "Futurism" is very readily bowdlerized and the professional movement for rigorously thinking about the future is in danger of being discredited by hucksters and simpletons jumping on a bandwagon that has no criteria for quality.

5. To publicly bestow professional recognition on deserving writers while possibly dampening the undeserved reputation of others.

6. To contribute to "Essential Reading for the Future of Education--1972." Later this spring,[4] I hope to update my selected bibliocritique, "Essential Reading for the Future of Education" (Educational Policy Research Center at Syracuse, Feb. 1971). Although the "Hot List Delphi" will be published separately, I am hopeful that some of your suggestions will inform my list of 250 items. Contributions will be acknowledged.

7. To satisfy personal curiosity, I have made my own crude judgments, and I wonder whether they might have any similarity at all to the judgments that others might make. I also hope to be made aware of important literature that I might otherwise not consider; other panel participants will hopefully enjoy the same educational benefits.

II. PANEL SELECTION

The criterion for participation in the panel is some degree of critical appreciation of at least 500 futures or futures-related documents. If you feel that your base for selection does not approach this level, please do not hesitate to disqualify yourself.

This initial invitation is being sent to those engaged in futures documentation (most but not all of the membership of the "Futures Information Network"), editors of futures periodicals, and several prolific futures/policy scholars. The initial mailing list is enclosed. The recommendation of additional names is encouraged--but please state the nominee's qualifications and contain your recommendations as much as possible. An upper limit on panel participation has not been set, but more than 30 panel members, each listing 30 documents, could become cumbersome--especially if there is little consensus.

1. Group Participation. Many of the invited panel members head a documentation team/project/collective, or are employed in an organization where consultation with colleagues could greatly benefit one's list of 20-30 essential documents. This consultation is encouraged, and if so engaged in, names will be listed as follows: "George Smith and colleagues at the Futures Research Center." Or, if judgment is made equally by two or more persons, multiple names will be counted as one, i.e.: George Smith, Carol Jones, and John Masuma of the Futures Research Center. No more than one panel member will be invited from any one organization or project.

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[4] I must confess a great difficulty in forecasting the fruition of my own work. The latest estimate for "Essential Reading" is Fall 1972.

2. Identification of Panel Members. Unlike the classic Delphi exercise, where identification is optional, all panel members will be identified, along with their qualifications (book or bibliography completed or in process). The Round I selections of panel members and Round II ratings will, however, be held strictly confidential.[5]

3. U.S.--Non-U.S. Mix. A list of documents entitled "Essential Reading for the Future of Mankind" contains global pretensions.[6] However, the list of rated documents will be confined to those in English language. Non-English language documents may be recommended, but will not be rated by the panel, and will appear in a separate section of the final report.[7] An additional difficulty concerns the high proportion of Americans on the panel. This bias can only be duly noted, with a special tabulation of non-American ratings if there appears to be a substantial difference of opinion.[8]

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[5]Through an oversight, I did not specify whether the annotations and counter-annotations would be kept confidential. Once underway, I queried the panelists, and the responses were evenly divided. In respect for those preferring complete anonymity, the annotations have remained unsigned, although I have indicated my own additions. In any future application of the Hot List Delphi methodology, I would strongly encourage signed annotations in order to promote and reward good work--which is only scattered in the present listing. The ratings, of course, would still remain anonymous (other than those suggested by the annotations).

[6]This title has been dropped for the present report, but is still aspired to.

[7]Only one non-English language document was suggested (Lenk, No. 213), so it was mercilessly thrown in with the rest. As might be expected, the rating was 12-0-0/1-0-0-0/0.

[8]With only three non-Americans on the panel, such an analysis would be fruitless. It can be generally said, though, that the non-U.S. panelists were able to rate more documents than the U.S. panelists. Because of our lingering ethnocentrism or our imperfect information systems, U.S. documents are unduly favored in this listing. For example, the British Blueprint for Survival (No. 78) contains essentially the same message appearing at the same time as the well-publicized Club of Rome study that was published in the U.S. Blueprint received a rating of 5-3-1/2-2-0-0/0, while The Limits to Growth attained recognition in the "Top 36" (see Chart 1) with a rating of 0-0-3/5-3-0-1/0.

Ultimately, it is hoped that a globally representative panel can somehow judge the most notable futures documents appearing in any language. But, for the present initial experiment, ideality gives way to convenience.

4. Reimbursement. Participation in this exercise may involve one or more days of one's scarce and valuable time. However, there will be no payment of even a token honorium--not only because I have no funding to conduct this project, but also because it is felt that professional recognition for serving as a panel member, an altruistic satisfaction from participating in what could be an important educational enterprise, and the simple stimulation of intellectual curiosity will more than compensate for your time.(9)

III. PROCEDURES

1. Round I: Panel Member Listings. Upon receipt of a minimum of 15 acceptances, Round I will be initiated sometime in April by a mailing of the revisions of the procedures (if any) and my sample listing of 25 essential documents. As coordinator, my list will not be included in the consolidated list, nor will I participate in the ratings.(10) My list will serve to suggest a recommended format and to recommend some items for your consideration. It is hoped that panel members will neither be unduly swayed by this imperfect list or unduly reticent to recommend any document that I prefer.

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[9] Funding, unfortunately, appears to be a major necessity for any substantial improvement in a Hot List Delphi. The panelists who have cooperated here are commended for volunteering their time, but they cannot be expected to spend the days--indeed, the weeks or months--that a rigorous selection process demands. An ideal selection system might engage its selectors on a half-time or even a full-time basis. Lest this seem extravagent, it would nevertheless appear that the social benefit would be worth many times the cost--a statement that cannot be made for most investments of public funds for scholarly research.

[10] Once underway, I changed my mind and queried the panelists, who were nearly unanimous in not objecting to a role change to "participating coordinator." Although I have not rated the nominated documents, I have had the final word by supplying a number of last-minute suggestions (indicated as "Ed. Suggestion") as well as notes and comments where appropriate.

Panel members, with or without consulting their colleagues, will submit their list of 20-30 essential documents (25 is suggested; a variation of ±5 allows some flexibility) on or before May 1. One or two sentence annotations for each item are highly desirable,[11] as is a full citation (including price, if known).

2. Round II: Rating of Consolidated List. The individual lists will be consolidated into a master listing of several hundred items (the number depending on the extent of overlap), and resubmitted to the panel in early May. Where a document is mentioned more than once, the number of mentions will be indicated.

Panel members will rate each document on two scales: quality and applicability.

-Quality Ratings:

1. Essential (excellent, exemplary, very important)
2. Good (worth reading, of some importance)
3. Fair (not particularly worthwhile; of minor importance)
4. Poor (worthless, overly biased, dangerously narrow)

I - Not familiar with document
II - Familiar, but not qualified to pass judgment[12]
III - Judgment suspended due to possible bias: author is self, friend, or colleague

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[11] This provision was too fuzzy, leading to annotations varying in length from 10 to 200 words, if they were supplied at all. I was reticent to ask volunteer panelists to supply lengthy annotations, but in any future exercise I would try to encourage annotations of at least 50 words, perhaps through special payments for the difficult work involved. On the other hand, some annotations were too long, and I took the unannounced liberty of editing them. It is clear that the criteria for annotations should be considerably sharpened.

[12] An extra category was subsequently added to distinguish between knowing of a document and having actually scanned it or read a review.

-Applicability Ratings:[13]

A - Professional (of interest only to futurists and graduate students)

B - College (of interest to undergraduate students and informed public)

C - Popular (of interest to high school students and general public)

AB - Professional and College

BC - College and Popular

ABC - Of interest and importance to everyone

X - Not familiar with document

Panel members are not expected to be familiar with all or even most of the documents in the consolidated list. Indeed, it may be surprising if more than one-quarter of the panel members offer a rating on most of the "nominated" documents.[14]

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[13] To simplify procedures, panelists were subsequently not asked to rate each document for applicability. The applicability rating supplied by the nominator was judged to be adequate, and not worthy of further judgment from others.

[14] My apologies are extended to the panelists for underestimating their considerable knowledge. The median response (number of items read and thus able to rate) was 48% of the 220 listed items, with a range from 31% to 85%. However, a lack of specificity about the number of essential ratings desired in Round II (despite the elaborate and perhaps unnecessary procedures designed for Round I), resulted in widely varying response patterns. In subsequent efforts, it is clear that a range of response, similar to the infamous grading curve in large college courses, should be stipulated. Rather than provide further analysis, the raw response data is presented below; and the reader may make his own analysis.

Respondent No.	Unable to Rate			Have Read				NA	
	I	II	III	1	2	3	4	x	Total
1.	44	22	48	42	38	21	3	2	220
2.	40	19	34	28	20	14	-	65	220
3.	98	22	15	51	29	-	4	1	220
4.	80	17	32	38	26	7	5	15	220
5.	51	41	57	58	13	-	-	-	220
6.	24	8	-	33	107	16	1	31	220
7.	39	28	30	74	44	-	-	5	220
8.	70	23	20	27	48	28	1	3	220
9.	63	28	32	49	42	6	-	-	220
10.	59	15	67	17	44	14	1	3	220
11.	54	16	6	25	39	37	35	8	220
12.	79	40	33	22	16	17	10	3	220
13.	67	8	4	119	19	1	0	2	220

The level of comprehension rating may prove to be a worthless burden,[15] but it is important for appropriate curriculum materials to be identified for high school and college students. If there is little or no differentiation by level of comprehension, the distinction will be ignored in the final report. On the other hand, if two or three fairly distinct lists emerge, the distinction should be highlighted--panelists may exempt themselves from a quality rating but nevertheless rate a document for applicability. For simplicity's sake the convenient fiction will be adapted that an item's quality does not vary according to level of applicability, e.g., if a document is appropriate for professional and college levels, its quality cannot be rated as essential for one and merely good for another.

Panel members will submit their Round II ratings on or before June 1. A copy of the final report will be sent to each panel member when available in July. [16]

3. Change of Rating Between Rounds. All documents listed in Round I will be judged by the nominating panelist to be "essential." But one need not stay committed to this rating in Round II, after contrasting one's list of 25 ± 5 with the consolidated list of several hundred.[17]

4. Counter-Annotations. The 1-2 sentence annotations supplied in Round I will remain with the citation in Round II and in the final report. If you wish to change your original annotation, you may do so. You may also supply a counter-annotation for any document in the consolidated listing if you disagree sharply with the annotation that is provided. In the case of essentially similar annotations, I will choose the better

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[15] See note 13.

[16] Due to panelist lag, the deadline for Round II ratings was extended to July 10. Editor lag extended the appearance of the final product to September. Serious funding of the exercise would probably reduce both lags.

[17] This "cleaning process" worked to some degree. Of the 214 nominated print items (2 LP records and 4 films were also rated--see note 20), only 192 received at least one "Essential" rating; thus, 22 items were dropped. A third round of ratings--striving for consensus in classic Delphi style--might have resulted in the deletion of several dozen additional items, especially if limits were placed on the number of items that could be judged as "Essential." Unlike the classic Delphi, which can pretty much refine a set of fixed questions, new additions to the Hot List are always necessary, as are procedures for deletion.

one. All annotations will be anonymous.[18]

5. Criteria for Round I Listing. There are, undoubtedly, many different definitions as to what constitutes "essential" futures literature, which is why this survey could prove interesting. My preferences run toward work that is holistic and integrative, presenting alternatives and exploring consequences, offering positive visions to follow and/or negative visions to avoid.

Essential reading may concern substantive matters or be devoted to methodology. It may be general--viewing society or culture in a global context--or specifically confined to some problem area such as peace, ecology, health, technology, education, the family.[19] (Panel members who specialize in such an area need not hesitate to submit a Round I list entirely devoted to a particular area of concern.) Poetry and fiction can also be included, e.g.: the visions of Huxley and Orwell may still be appropriate to our time. Indeed, a basic futurist library need not be confined to contemporary work, and Morris, Bellamy and even Plato may be felt to have more relevance to our understanding of the future than the work of any present-day author. Suggestion of non-print items is welcomed, but such "essential viewing" will not be rated (see Section III-6).[20]

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[18] The idea of counter-annotations proved to be the greatest disappointment of the entire exercise. Whereas an exciting dialogue was envisioned, only a few rather skimpy comments were provided. Again, it would appear that ample funding would be necessary to insure that time is spent in succinctly refining points of disagreement.

[19] As mentioned in the Introduction, the lack of specialized futurists on the panel, resulting in a lack of essential documents related to specific problem areas, is a major weakness of this survey.

[20] I subsequently overcame my prejudices, recognizing that futurists should acknowledge an emerging multi-media age. Although 2 LP records and 4 films were nominated in Round I and rated in Round II, there was virtually no further augmentation of this "Essential Viewing and Listening Category." The resulting list proved so scanty that the category was dropped, although it is recommended for further exercises. It is interesting to note that Stanley Kubrick's "2001" received a rating of 1-0-0/6-1-1-2/2, while his more recent and less sanguine film, "Clockwork Orange," was rated as 2-3-0/2-3-1-0/2.

There are no restrictions as to form, and judgment will hopefully be made on content, rather than style or literary quality. One may nominate a book, journal or magazine article, conference or commission report, monograph, working draft, or prospectus. If one wishes to choose an essay in an anthology, cite the essay itself; if two or more essays in an anthology are deemed essential, cite the volume and indicate the important essays in the annotation.

Panel members may recommend their own writing (limited to one or two most important pieces) or that of colleagues in the Round I listing. However, panelists may not rate their own work or that of their colleagues in Round II. In the event that no other panelist offers any quality rating in Round II, the item will be placed in the "non-rated listing" (see below).

6. Non-Rated Listing. In addition to the rated listing, there will be a supplementary listing of non-rated items: films and videotapes, books and articles in press, limited circulation or edition items, items in any language other than English, items receiving no rating (see above), new items that come to one's attention after the Round I list is submitted, or essential items that come to mind after judging the consolidated Round II list.

Please make a special indication of items felt to be appropriate to the non-rated listing. A non-rated category of "essential viewing for the future" will be included if non-print items are recommended.

IV. PRODUCTS

The final report, tentatively entitled "Essential Reading for the Future of Mankind: A Basic Library Suggested by ( ) Leading Futurists" will be published in July by the Educational Policy Research Center at Syracuse. Edward Cornish of The Futurist has expressed an interest in publishing an abbreviated version of this report, i.e., only the top 50 or 100 items will be reported--the actual number depending on the rating distribution.

If this "Hot List Delphi" exercise is judged to be successful by the panelists, it will probably be continued on an annual or semi-annual basis (or perhaps even on a continuing basis by utilizing electronic technology). Modifications will surely be instituted such as expanding the panel to include a broader global, methodological, and ideological representation and expanding the means for participation so that anyone can nominate a document. (For purposes of this initial survey, however, it is felt necessary to limit nominated documents to panelists and their colleagues, and to limit the number of panelists.) In the future, it may also be necessary to develop mechanisms for panelist turnover, in order to avoid the perpetuation of a stagnant in-group. Different survey coordinators and more specialized panels may also be warranted.

Part IV

Summary and Proposal for a Global Selection System

In commenting on the recent OECD report, Information for a Changing Society (No. 134), Brady and Branscomb cogently summarize "what is needed to ensure that changing societies make wise decisions": information on what society is like and how it is changing, social analysis to determine relationships between current actions and future effects, well-informed decision-makers (including the public) with access to the information they need, and appropriate institutions for insuring that decisions can be put into practice.

> Certain themes run throughout the report, binding it into a consistent pattern: (i) various types of information are needed for decision-makers at all levels throughout society; (ii) information must be appropriately packaged and interpreted for each specific community of users; and (iii) quality of information--that is, its reliability and credibility--is more important than access to great masses of raw data.[1]

This exploratory exercise parallels these themes, concentrating on the general, holistic information that every decision-maker ideally should employ in conjunction with more specialized information, attempting a new form of packaging, and--most importantly--focusing its efforts on spotlighting quality.

However, as pointed out in the Preface and again in Part III, there are many flaws to this effort. Even if one were to continue at the present level of little or no special funding, there are many variations to the "Hot List Delphi" methodology that might be tried. To mention only a few:

> Parameters of Consideration--Should consideration be restricted to print media or to all media? Should an exercise among general futurists be joined to

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[1] Edward L. Brady and Lewis M. Branscomb, "Information for a Changing Society," Science: 175, March 3, 1972, p. 962.

similar exercises among more specialized scholars and decision-makers in various problem areas?

Panel Selection--The question of fitness for judgment is always with us. Should selection be based on breadth of knowledge (as employed here), or the quality of past performance? How is quality and/or quantity defined and by whom? Should there be quotas by age, sex, race, ideology and nationality, or should meritocratic criteria dominate?

Nominations--Should nominations be open to anyone, or closed to panelists? Should the number of nominations be limited or unlimited?

Rating--Should the number of "Essential" ratings be open to judgment, or restricted to a set number? Should ratings be done on a check-off basis, or only with some justification?

Annotations--Should annotations be prepared by nominators or by a central source (allowing uniformity)?

Cut-Off Criteria--Should any document be listed if it receives one "Essential" vote, or should two or three such votes be a minimum for listing? Should the highly selected list (see Chart 1) be based on "Essential" votes only, or on some weighting of Essential, Good, Fair, and Poor ratings?

Level of Appreciation--Should separate panels be employed for selecting professional, college level, and high school level documents, or, as here, should these levels be judged simultaneously? Similarly, should the resulting list be presented as one document (enabling the user to elevate or demote himself as necessary) or should there be three lists aimed at more specific audiences?

One of the important virtues of studying the future is the freeing of the imagination, enabling the postulation of alternative futures which, if not viable goals to strive toward, can at least serve a heuristic function in formulating such goals. In conclusion, then, a Global Essential Information Selection System (GEISS) is briefly sketched out--one of many ideal structures that could be possible.

* * *

The GEISS is composed of one general panel and fourteen

specialized problem-focused panels,[2] each panel comprised of 20 persons on part-time and full-time GEISS fellowships. Each panel works on a continually-updated selection of essential information for its area. The selection is made available to the public bi-annually in print form, and continuously for those who have access to computer terminals.

An additional selection process is performed annually among the 15 panels to determine the 250 documents (or films or tapes) that are most essential to the shaping of mankind's future. Of these, two dozen GEISS awards are bestowed to the most distinguished contributions. These awards have now superseded the Nobel prizes in terms of prestige. Various publishers, book clubs and public-oriented interest groups have cooperated to make the annual list of 250 items as widely available as possible, and, in addition to many university courses focusing attention on these essential materials, there are 500 GEISS seminar leaders throughout the world who offer courses to decision-makers, teachers, and the general public. Much of the curriculum of the Global Electronic University is based on the materials identified by GEISS.

Given the critical importance of GEISS, the procedures for nominating the panel and selecting outstanding materials are of utmost importance. In that GEISS Fellows serve a staggered two-year term, outgoing fellows play a major role in selecting among the thousands of applicants for replacement. The nomination of materials

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[2] The number of specialist panels is somewhat arbitrary. To maintain a manageable dialogue, it would seem that the proper number should be less than the 25 project areas outlined by Richard A. Cellarius and John Platt ("Councils of Urgent Studies," Science: 177, August 25, 1972). The distinction between "general futurists" and "specialized futurists" is described more fully in Michael Marien, "Toward Linking Futurists to the Academic World," in Michael Marien and Warren L. Ziegler (eds.), The Potential of Educational Futures (Worthington, Ohio: Jones, 1972).

is now of major interest to authors and publishers, and rigorous procedures are followed to insure the integrity of panelists and a fair hearing for all. Preliminary screenings are performed by a permanent GEISS staff and various established information services. Once nominated by the GEISS staff or by a panelist, documents are distributed to all panelists so that they can be judged and commented upon--a far cry from earlier efforts plagued by problems of access. The brief but critical comments are published with the bi-annual selections of each panel, and have served to highlight major disputes and in turn stimulate further work toward their resolution.

Through various packagings of this ever-evolving compendium of "Essential Information," the global public now has access to the tools that can aid in shaping a more human future. GEISS will necessarily remain an imperfect mechanism, and there are still many disputes. We are still ignorant, but hopefully we are slowing the growth of our ignorance[3] as we try to comprehend the unfolding of our social transformation to a planetary society.

* * *

There remains a vast distance between ideality and reality. The rudimentary Hot List Delphi of 1972 may be one small step toward a better informed world.

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[3] Michael Marien, "The Discovery and Decline of the Ignorant Society, 1965-1985," in Thomas Green (ed.), Educational Planning in Perspective. Guildford, Surrey, England: FUTURES IPC Press, 1971.

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